

WorkAbilities:

A study of Chronic Pain and Work Disability

A Thesis
submitted in partial fulfilment
of the requirements for the degree of
Masters of Science in Psychology
at the
University of Canterbury
by
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University of Canterbury 1999

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To:

My children, Seann and Mickie who have repaid, with interest, the torment I inflicted on my parents when I was small by repeatedly asking - why?
I still ask the same question...

Nick, who never allowed me to give up

the New Zealand Pain Society
who generously provided me with the grant to
purchase the computer on which this work was written

and

the many people who have shared with me the privilege of working on their
dream to return to work

Thank you

Abstract

Many people in New Zealand stop working, and then remain off work after developing musculoskeletal pain. Some individuals return to work after some time, others remain off work despite receiving a great many biomedical and other interventions. That one group of individuals with the diagnosis of chronic pain syndrome are able to return to work while others with the same diagnosis fail to return to work suggests that factors other than the presence or absence of pain determine whether an individual develops and maintains a work disability.

This thesis explores the generation of a model of work disability for individuals with chronic musculoskeletal pain who have completed a pain management programme at the Burwood Pain Management Centre. Abductive method of theory development has been used to guide the process. This method of reasoning works back from identified phenomenon to presumed cause, and explicitly acknowledges those parts of the research process that are not always considered important enough to be mentioned in the hypothetico-deductive method. These aspects include the constraints of the setting in which the research problem has arisen, the prominent role of early data collection and analysis, generation of models to explain data patterns which may have been identified during exploratory analysis, and the approach to theory appraisal which incorporates consideration of explanatory coherence, simplicity and analogy as well as empirical robustness.

The thesis describes features of the clinical setting, and issues raised by the literature, in order to form the question: "Is it possible to conceptualise work disability so that individuals with chronic pain can develop skills to overcome their challenges for return to work?". An assessment process and intervention programme developed for the Pain Management Centre,

Burwood Hospital, was used as the vehicle for exploring individuals' understanding of their problem, and generating a model of work disability. The intervention programme also provided preliminary outcomes for evaluating and enriching the model of work disability.

Chapter One

Introduction

Chapter One

Introduction

What people with chronic pain say about returning to work

"I never tell people I'm on ACC - I just say I'm working for the Government."

"I really want to go back to work, but the way I am now - what employer would take me on? I can't even do my own lawns in one hit!"

"I want to stop having to look over my shoulder to see if ACC is there. I want to take control again."

"I've been a meat worker for 20 years, you learn one way of doing things - flat out - that's how I got my reputation, and you can't change the habits of a life time..."

"ACC are pushing me back to work, my wife is afraid I'll go back down as low as I was before, and I don't know what kind of work to look for..."

There is no doubt that one of the greatest challenges facing an individual with long term musculoskeletal pain is returning to productive activity. Clinicians have conceptualised the problem in many ways - but is it really

- a pain management problem requiring a range of pain reduction or management strategies including medication, surgery, fitness programmes, cognitive behavioural programmes, transcutaneous electrical nerve stimulation (TENS) . . . ?
- a problem of lack of motivation, reinforced by the payment of benefits, "compensationitis"?
- a problem of too few jobs, too few skills and the need for vocational redirection or job seeking strategies?
- something far too demanding to be expected from those suffering such disability?

- or a lack of adequate workplace injury management including suitably modified duties, graded return to work programmes and retraining?

Interventions from each of these perspectives have been provided, all with some degree of benefit, but no single intervention provides the definitive answer. Despite widespread acknowledgment that pain is exacerbated and maintained by multiple factors, many of these approaches are unidimensional, focussing on only one factor thought to be interfering with returning to work. Even when the approaches used do cross a number of dimensions (such as cognitive behavioural approaches which incorporate functional activity, cognitive strategies and the social learning theory), vocational outcomes remain disappointingly low (Scheer, Watanabe, & Radack, 1997).

The difference between having pain and having pain but not working...

Interestingly, most people with musculoskeletal pain *do* remain working - Hagen and Thune (1998) indicate that of those reporting low back pain in the Norwegian population, 85% return to work within six months and 35% return within the first month (Hagen & Thune, 1998). Yet Kendall and Thompson (1998) found only 1.6% of those attending a residential pain management programme were in paid work, and Cutler et al. (1994) found that only 35 - 45% of participants in non-surgical pain centre treatments returned to work,

A study of the reporting versus the incidence of musculoskeletal pain in a large population of employees at the Boeing plant (Battie et al. 1991; Bigos et al, 1992) found that while a large number of individuals acknowledged they experienced pain, a much smaller number of individuals actually took time off work for their pain. The disparity between the number of people experiencing pain, and the number who go on to report that pain and take time off work implies that factors other than the presence or absence of pain influence this decision. Bigos specifically identified that workplace management factors

(such as a negative performance review within the past six months) correlated positively with reporting of low back pain. This suggests there is a difference between the problem of the *presence of pain*, and the problem of *work disability attributed to pain*. According to injury statistics collated by ACC (Accident Rehabilitation Compensation & Insurance Corporation), although there are many claims lodged for work-related musculoskeletal pain (over 11,000 new low back pain claims in 1996/1997), only a small proportion remain on compensation for more than 12 months. Over 12,500 claims open for more than 12 months, including those claims that had been open since the scheme began, were recorded during 1996/1997 (Accident Rehabilitation Compensation & Insurance Corporation, 1998b). However, these longstanding claims are responsible for the greatest proportion of costs associated with work-related pain. Those factors that initially influence when or if an individual reports pain may not be the same as those that *maintain* subsequent work disability.

A multidimensional approach

Since the presence or absence of pain does not seem to predict whether a worker stops or remains working, models that structure examination of the multiple factors thought to influence work disability have been suggested. A number of multidimensional models have been suggested, but no single approach has been widely adopted. In the absence of any definitive model, the default models used are either biomedical¹ or rehabilitative, both of which conceptualise work disability in terms of disease-related variables such as degree of impairment (physiological damage evident), equating pain with damage, and accommodating disability by modifying the task or environment. This is despite acknowledgment in pain management research for some time,

¹Biomedical refers to a primarily disease/disorder oriented, biological approach to human dysfunction. Interventions may include diagnosis, surgery, medication, physical therapy modalities. It is often represented as the "traditional" medical approach.

of the importance of influences from wider variables such as family responses, beliefs, and mood state, and the need to look beyond short term reduction of distress to long term well-being (Waddell, & Main, 1984; Waddell, Main, Morris, DiPaola, & Gray, 1984). Waddell and colleagues as far back as 1984 stated that "disability in low-back pain can be understood in terms of physical impairment, psychological distress, and illness behaviour" (Waddell et al, (1984) p. 212). They acknowledged, however, that while disability may be explained by "physical, psychologic, and behavioural factors and very little influenced by basic social or demographic factors", time lost from work is less well explained - and suggest that "social interactions within the family, at work, and financially largely determine the social consequences of a given level of disability" (p. 212). This suggests that any examination of the phenomenon of work disability must not forget to consider social and other contextual factors.

One approach put forward by Sanders (1996) is the social-ecological approach of Stokols (1992) which has been applied to health promotion, and is suggested by Sanders as having potential for re-conceptualising work disability. Stokols' model incorporates an ecological paradigm which has been part of psychology, sociology, biology and economics since the 1950's (Hawley, 1950). It is characterised by the recognition of inter-relatedness of individuals within their "physical and sociocultural surroundings" (Stokols, 1992, p7). Stokols explains the need for a "contextually oriented view of human health and well-being" (Stokols, 1992, p7), to contrast with the individualistic view of *self* responsibility for disease prevention and health protection usually promulgated in western societies like North America, (and similarly, New Zealand). He suggests that health promotion vis a vis disease prevention "places ... emphasis on the role of individuals, groups, and organisations as active agents in shaping health practices and policies to optimise both individual wellness and collective well-being" (p6). He provides examples of a variety of environmental interventions that augment behaviourally oriented

health promotion programmes, such as the provision of fitness facilities at the workplace, improved ventilation systems, and safer design of stairs. This is in contrast to the focus in New Zealand on individual responsibility for return to work as incorporated in the 1992 Accident Rehabilitation and Compensation Insurance Corporation Act.

Despite the focus on individual responsibility, it is clear that the resources and characteristics of individuals caught up in chronic work disability *interact with* health care systems, compensation systems, physical environments, and socio-cultural attitudes (Fordyce, 1995). What may initially be an injury or complaint at work develops into work disability as a result of the above interactions. For example, an employer not providing suitably modified duties so workers can remain at work (increasing disability), a treatment provider suggesting making a claim for compensation to ensure payment (ensuring the worker becomes part of a compensation system), or other workers suggesting "unless you can pull your weight, you shouldn't be working".

A social-ecological perspective was incorporated in Dianna Kenny's (1995) studies of work disability in workers from the Newcastle and Hunter region of New South Wales. This series of studies identified four major stakeholder perspectives and systematically examined the interactions between them in order to describe a model of work disability incorporating all four viewpoints. Those four stakeholders were (1) the worker; (2) the employer; (3) the health care provider; and (4) the insurer (funding provider). Kenny uses systemic family therapy as the basis for her analysis (p 239), identifying "victim blaming" and "system blaming" as the more usual approach used by proponents of the medical models and the industrial sociological models respectively. She states "the focus of assessment is the *relationship dynamic* occurring between the injured worker and the system rather than an exploration of the individual's traits, skills and capacities *in isolation*" (Kenny, 1995, p46.) (italics added).

Although she endorses evaluating a return to work situation in this way, she does not develop a clinical method to achieve this. Her view does suggest, however, that evaluation will lead to identifying very specific factors that have influenced the individual to present in his or her distinctive manner. That is, by considering the *relationships* between various aspects of an individual's presentation with work disability, individualised models or *formulations* of those factors thought to be initiating and/or maintaining that individual's work disability may be identified. Specific interventions may then be developed, with hypothesised outcomes to either confirm or disconfirm the formulation.

The need for a new paradigm for work disability

A difficulty inherent in multidimensional models is the sheer number of variables that can be hypothesised to have some influence on the individual's presentation. In a clinical setting it is just as unhelpful in terms of time (cost) versus outcome (benefit) to work through every possible variable for each individual, as it is to focus on a single dimension (such as pain intensity, or job satisfaction, or work stress). The vast number and diverse range of variables that have been postulated in pain-related work disability (e.g. bio-mechanical, job related, psychosocial) strongly suggests that an integrated model has not yet been formed. Work disability research has been constrained to investigate predominantly health or biomedical issues (focussing on the individual) while rarely encouraged to look non-health factors such as organisational structure, government policy and cultural beliefs about working and disability (individual, group and organisational influences). There remains a need to explore *how* individuals acquire and maintain work disability, and for this to be done within the multiple dimensions suggested by authors such as Stokols and Kenny. In terms of research programmes, it is therefore necessary to undertake exploratory and descriptive work to identify the key variables that may influence work disability *before* commencing extensive empirical hypothesis testing.

The challenge for researchers and clinicians in the field of pain-related work disability is to develop an appropriate *method* for systematically examining the range of variables influencing an individuals' presentation. Because the primary presenting problem is usually *pain* (and the health and compensation system tacitly encourages a health or illness approach), pain modulation becomes the focus of clinical investigation, problem formulation, and intervention. The model adopted (usually biomedical) has considerable influence over the type of information that is gathered, and later identified by the clinician as important. Investigation and assessment of individuals with work disability is mainly grounded in a health-related view of the problem (e.g. "S/he stopped work because of pain from injury"), and interventions continue to be focused on those health-related factors *presumed* to contribute to the problem whether or not they in fact do so, e.g. cardiovascular fitness, the use of analgesia to reduce pain intensity, and provision of adaptive equipment to avoid or reduce "re-injury", or exacerbations of pain.

A multidimensional view of work disability suggests that evaluation and management must identify features of the presentation without adhering rigidly to a particular theoretical model, to avoid overlooking information that may be relevant to the individual and the development of his or her work disability. (As one clinician put it: "If the only tool you have is a hammer, all you see are nails".) Any method of clinical formulation must take into account information from a wide range of domains and explaining interactions between various factors, develop a coherent account of the development and maintenance of the presentation, as well as guiding interventions and evaluation. A broad formulation may be, however, difficult to do within a traditional health care or compensation environment where intervention is provided on the basis of presumed biomedical aetiology, e.g. all "occupational overuse syndrome" (OOS) should be treated with soft tissue massage.

Clinicians considering a multidimensional model of work disability are asked to make two major adjustments to their conceptualisation of the problem: (1) to challenge the assumption that presence or absence of pain is the primary contributor to work disability; and (2) to challenge the belief that each case of work disability develops in the same way (is homogenous in terms of the interactions between individual factors and those within the environment), and therefore should respond alike to interventions.

An overview of interventions provided for work disability

Work disability interventions can function at three levels.

Primary prevention aims to reduce the *initial incidence* of work-related pain problems. Interventions such as ergonomics, safety campaigns, preselection personnel screening, wellness programmes for employees have all been used to attempt to reduce the incidence of low back pain. Success has not been marked, and in fact the rate of reporting of low back pain for example, has not reduced, despite the increased attention paid to it (Burton, 1997; Fordyce, 1995).

Secondary prevention aims to reduce the *degree of disability and prevent recurrence or reinjury* experienced by those who do develop work-related musculoskeletal pain problems. It aims to reduce the amount of time an employee has away from work by using treatments such as physiotherapy modalities, other interventions such as graded return to work with modified duties, case management, and legislated contingencies for employers who do not provide suitably modified duties. Despite the introduction of a punitive "experience rating" system in New Zealand of increased levies for employers with poor return to work rates, there is no requirement for an employer to hold open a position for any employee, and positions can be terminated very shortly after the employee stops working. Secondary prevention strategies have provided only modest reductions in long term work disability (Cutler, et al.,

1994; Scheer, Watanabe, & Radack, 1997).

Tertiary prevention aims to *reduce or prevent the development of complications* arising from disability. In work disability, tertiary prevention aims to reduce the effects of inactivity, low mood, and long term unemployment by assisting the individual to identify and work towards appropriate levels of economic independence from compensation. Examples of these strategies include gradual withdrawal of home help, participation in voluntary work, study or retraining.

Many interventions provided under the guise of tertiary prevention (assisting the individual towards independence) could more properly be identified as secondary prevention strategies (with a goal of reducing disability). Examples of the latter include fitness programmes aiming to assist people to become “work-ready” (but perhaps without preparing them for job seeking), job seeking programmes (for individuals who may remain unfit and unable to return to their usual occupation), pain management strategies that individuals learn to use in their own home environment (but perhaps not in a work environment).

Each of these levels of prevention has the potential to reduce long term work disability. Each one level of prevention certainly has a place - but each are not equally relevant to a single individual. There needs to be a mapping of interventions based on specific individual needs. The challenge is to choose the right approach for the right person at the right time - something that seems to be more art than science!

When work disability is conceptualised as a biomedical or health problem of a single individual, in isolation from his or her family, work and societal environment, an enormous variety of interventions are available. Most interventions “work” some of the time, and for some individuals “trial and

error" approach to deciding on an intervention has led to positive outcomes. Case managers and health care providers offer interventions based on their assumptions about the presumed cause of work disability for an individual. Many case managers and health care providers rely on purely biomedical and rehabilitative models in the absence of individualised models of work disability. This has led to individuals participating in a large number of unsuccessful interventions, the outcomes of which may be very negative, simply because work disability has not been differentiated from health or disease. A method for structuring this problem identification needs to include not only medical or health problems, but those broader factors implicated in work disability.

Developing a model

The paradigm within which a problem is viewed frames the content and structure of investigation.

As stated earlier, although research into multi-dimensional factors influencing work disability has begun, no single model has been adopted to organise this information for use in a clinical setting. Even though there is acceptance in many circles that "other variables" are influential (e.g. Waddell & Main, 1984), work disability is most commonly viewed as an homogenous entity related to the presence or absence of pain, and treated within the health and compensation systems as a health problem with health interventions. The number of claimants with long term low-back pain recorded in ACC statistics bear mute testimony to the lack of efficacy of this approach (ACC, 1998b).

What intervention options open up when a *non-medical* view of work disability is adopted? Is there a methodology with which this can be achieved within the health and compensation system? Disability arising in response to pain problems is now recognised as heterogenous with, for example, some presentations identified as influenced mostly by catastrophic cognitions while

others involve social withdrawal, and still others involve high levels of physiological arousal - each presentation responding to different interventions. If work disability is not exclusively related to the presence or absence of pain, it may need to be recognised, and treated, as a complex phenomenon in the same way as pain disability. For example, some individuals may stop work because of beliefs about hurt and harm, some may be influenced by the responses of their coworkers, others from a desire to escape an aversive work environment, or understimulating job. These problems are unlikely to respond to medications, surgery or exercise programmes, let alone graded return to work programmes within the workplace!

The focus of this thesis is to explore, develop and speculate on the use of an approach to work disability that acknowledges the role of multiple factors (including but not restricted to, biomedical), on the genesis and maintenance of work disability. The study was conducted within a clinical setting with all the constraints of any applied research project such as limited availability of resources, the need to ensure measures were not intrusive, and restrictions on subject recruitment and selection. It uses both qualitative and quantitative data to generate a model of work disability that is grounded on the individual presentations that clinicians in this treatment setting commonly face. This model acknowledges the impact of pain, work loss and the broader "system" factors that are influential when an individual interacts with the health and compensation system. It is intended to open up avenues for future investigation by indicating phenomena that may otherwise be overlooked by the traditional views of work disability. The process followed is iterative, and broadly follows the form:

- (1) Review of relevant literature in order to identify those factors suggested to influence work disability
- (2) Describing the clinical setting in which the research was conducted
- (3) Describing the process of assessment and case formulation
- (4) Analysing assessment outcomes and developing/refining an intervention approach

- (5) Generating a tentative model of work disability
- (6) Reviewing intervention outcomes to enrich model development

It is tempting to represent the above process as an orderly, linear process of the kind illustrated by the figure below (Figure 1). Reality is somewhat different as clinical constraints mean it was not feasible to investigate a number of individuals, develop a model and test it, *before* developing an intervention programme. The process was therefore much "messier" and involved many

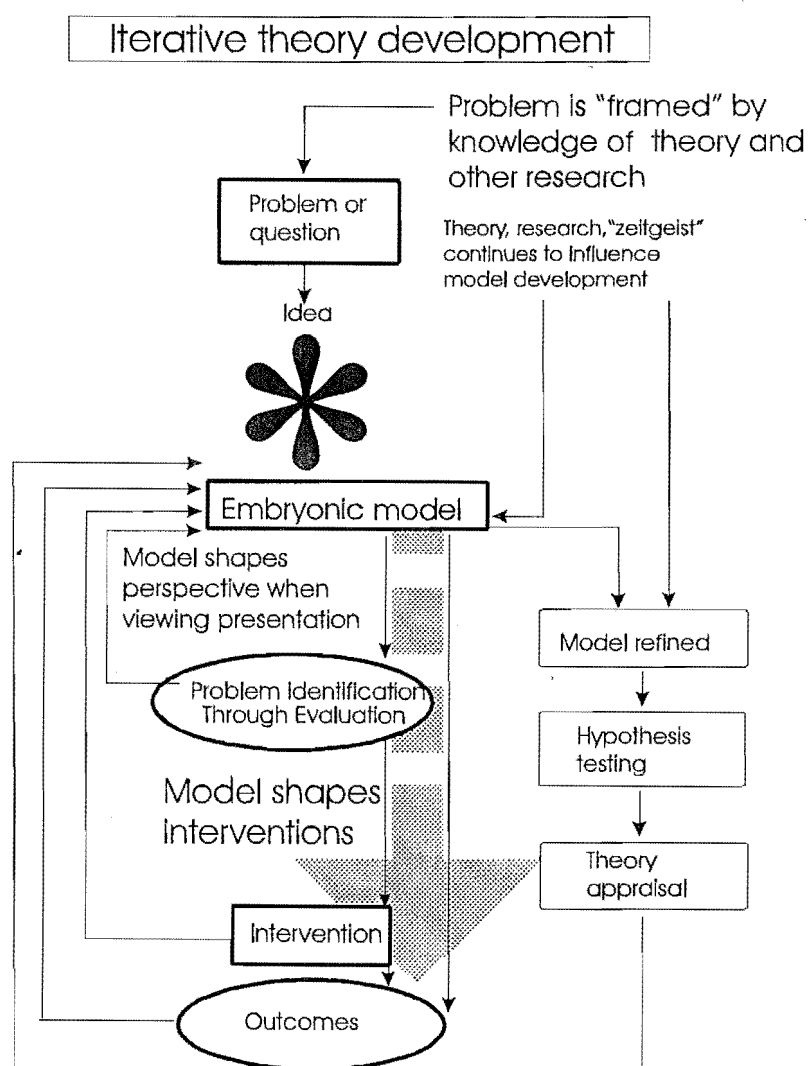


Figure 1. Iterative model of theory development

more cycles than the above description allows. There was considerable overlap between programme development based on “hunches” developed from initial qualitative analysis of assessment data, and the development of the assessment process was likewise influenced by early responses to the programme. Results from literature reviews also influenced the development of these processes.

This thesis, however describes the development of the WorkAbilities programme at Burwood Pain Management Centre, and is an attempt to describe a coherent version of the real process of applied research.

Chapter Two

Is Pain Really the Problem in Work Disability?
Redefining the framework of work disability

Chapter Two

Is Pain Really the Problem in Work Disability?

Redefining the framework of work disability

Factors influencing the incidence and reporting of musculoskeletal pain

During the 1990's there have been many studies exploring factors thought to influence the incidence, reporting and duration of pain and work disability in the workplace. It is widely acknowledged there are many more individuals in the workplace who may be experiencing pain at a particular time, than the number of those who actually report their pain. This suggests that individuals vary in how they perceive the problem, and the nature of their perceptions undoubtedly influence any subsequent actions. However, despite the prevalence of individual differences, the reports of work-related pain do vary systematically between industry groups, and between individual work places, suggesting that some workplace factors are relevant and predispose to the reporting of pain problems (Burton, 1997). A range of factors identified as relevant to the genesis of work disability is outlined below. This review is not exhaustive, because of the volume of literature available across many disciplines, but is intended to be representative. Much of the following literature is drawn from investigations into factors relevant to low back pain or regional pain syndrome (also known as occupational overuse syndromes, or repetitive strain injuries reflecting the presumed aetiology of the problem), but there are no reasons to suggest that those pains in other sites of the body are not also influenced by these same factors.

Studies of these factors have been generated by a broad range of disciplines (from medicine, psychology, biomechanics, personnel management, sociology and physiology). The methodologies used within the entire field vary considerably. The interactions between various factors have not been well studied. Clear causal relationships cannot be identified at this stage, but the number of studies with similar findings is indicative of the strength of the contribution of these factors. Improved methodologies and replication studies will provide further evidence to support the inclusion or exclusion of any number of specific factors within the broad headings listed below, as will the generation of a "meta-theory" with which to organise and structure enquiry, and in which relationships between variables can be explored.

Biomechanical

The most conveniently, and therefore probably most thoroughly investigated factors, are biomechanical task demands of a workplace. Numerous researchers have investigated variables such as the role of sustained static muscle contraction (e.g. Kumar, 1990); Kamwendo, Linton, & Moritz, 1991); increased levels of arousal and responsiveness in muscles (e.g., Flor & Turk, 1989); biomechanical demands of manual handling (e.g., Marras, et. al., 1993); and repetitive movements (e.g. Cohen, Sheather-Reid, Arroyo, & Champion, 1995). Findings have been mixed, but there is some support for the notion that very physically demanding work, particularly where heavy lifting is required, and where vibration is present, does pose an increased risk of developing musculoskeletal pain, particularly low back pain (Burton, 1997). Various methods have been employed as a result of these investigations to reduce the biomechanical demands of work tasks. Modified lifting techniques, work station design, and task rotation are all predicated upon the desirability of reducing biomechanical demands on the human body.

Interpersonal

Psychosocial or interpersonal aspects of the work environment have also been studied (e.g. Linton & Kamwendo, 1989). Lack of social support within the work environment has been established as a probable contributor to pain reporting (Burton, Symonds & Zinzen, et al. 1997), and the phenomenon of "contagion" has been thoroughly explored in the context of the "RSI epidemic" of the 1980's in Australia (Hopkins, 1990, Quinter, 1995). Job satisfaction has been measured with instruments such as the Psychosocial Aspects of Work questionnaire (Symonds, Burton, Tillotson & Main, 1996), which found that workers with higher levels of low back pain reported lower levels of job satisfaction and social support (despite finding no relationship between these factors and absenteeism or workload). Social and organisational interventions have been suggested based on these findings, for example, job enrichment, line manager training, and the use of buddy systems and team-work to improve interpersonal relationships, management styles and increase individual involvement in work tasks.

Individual response to pain

The pain literature has firmly established the role of individual interpretation, beliefs, emotions and behaviours on the reporting and maintenance of musculoskeletal pain. High levels of pain anxiety (McCracken, Zayfert, & Gross, 1992), and fear avoidance (Vlaeyen, Kole-Snijders, Boeren, & Van Eek, 1995; Waddell, Newton, Henderson, Somerville, & Main, 1993), negative or catastrophic cognitions (Flor, Behle, & Birbaumer, 1993), the presence of social phobia (Asmundson, Jacobson, Allerdings, & Norton, 1996), and attribution of the problem to the workplace (Hignett, 1996) as well as receipt of compensation, and many other similar factors have all been associated with the frequency of reporting and duration of pain-related work disability to varying degrees. Cognitive-behavioural pain management programmes, therefore, encourage the adoption of self management strategies to internalise locus of

control, and promote increased self efficacy for managing activities despite the presence of pain, while programmes also provide education to reduce catastrophising and distress. These programmes are usually offered after other biomedical options have been employed with disappointing results (Cutler, et al., 1995, Gallagher & Myers, 1996).

Organisational factors

Organisational structure has also been examined for factors that influence reporting and maintenance of musculoskeletal pain. Features such as worker adherence to safety regulations (Broderick, 1995), work design (Hackman, 1977), the influence of workplace safety programmes (Israel, Baker, Goldenhar, Heaney, & Schurman, 1996), and the impact of organisational change (for example, redundancies), have all been investigated, again with support for their influence on pain reporting for some but not all individuals. Programmes for returning workers to their workplace on selected duties or gradually increasing hours, counselling for workers made redundant, and the institution of workplace safety campaigns have all developed from these findings. There have been some paradoxical results arising from workplace safety measures such as that reported by Habeck, Leahy, Hunt and Chan, et al. (1991), where case monitoring and wellness orientation increased the number of lost workdays by 10.18% and 1.61%, respectively! Perhaps as more attention is paid to identifying workplace health and wellness issues, it becomes more socially accepted to identify and seek help for pain otherwise dismissed.

Social responses

Wider social factors such as legislation change have an impact on reporting of pain problems. For example, the rate of reporting occupational overuse symptoms was reduced following the revisions of the 1992 Accident Rehabilitation Compensation & Insurance Corporation Act. The response from

management towards musculoskeletal pain problems and working (Linton, 1991), organisational cultures such as ignoring or blaming the worker, working as part of a team on a bonus system or having mixed lines of communication between the direct supervisor, the coordinator of rehabilitation, and the worker (Kenny, 1995), have all been shown to influence both reporting and duration of work loss due to musculoskeletal pain. This has led to some commentators suggesting cessation of compensation for nonspecific low back pain after six weeks, and redefining the problem as "activity intolerance" (Fordyce, 1995).

Role of treatment providers

Kenny makes a strong case for exploring the influential roles of both treatment provider and compensation case manager, when she describes the dyad that can develop between a treating doctor and the patient against the employer or the case manager or both (Kenny, 1995, p.240). She identifies that treating doctors consider themselves to be the central leader in an individual's return to work, but that they are often viewed by employers or compensation case managers as "delaying return to work by issuing certificates as a means of keeping the injured worker as a patient"(p.252). The prevailing view of the employers and compensation case managers interviewed in her study of work disability in the Hunter region, New South Wales, was that doctors lack sufficient information about task demands to make recommendations for returning to work. The doctors, however, considered they had "principal responsibility for deciding when the injury worker should return to work" (p.252). Employers were specifically critical of doctors "play[ing] it safe. They are frightened of sending someone back to work early especially if it is to their normal duties. They worry about their liability if they get re-injured..." (p.253). Non medical treatment providers such as physiotherapists, occupational therapists, or chiropractors are also influential in developing an individual's understanding of their pain problem. These health professionals may make specific recommendations about movements or tasks to either avoid, or to

perform, that may be applied indiscriminately by the worker, and well beyond any time-frame suggested in the literature (e.g. resting a strain or sprain, wearing splints, avoiding lifting from the floor). Some of these recommendations are made in the acute stages of management, but may not be reviewed as time passes. Some treatment providers suggest that "pain should be the guide" (Franzmayr, 1997) well beyond the normal period for healing, thus reinforcing fear avoidant behaviour with subsequent loss of confidence to return to usual tasks.

Role of case managers

Compensation case managers play an influential role in ongoing management of work disability in New Zealand. One major employer, in its injury management guide, stated that they "implement a strategic approach to processing, communicating and decision making on each case, to minimise the effect of the injury on the injured person and reduce days off work" (Canterbury Health Ltd., 1999). Case managers request assessments and direct the management of cases as a result of those assessments. If their understanding of work disability is shaped, for example, by an underlying biomedical model, their choice of assessments and subsequent interventions will, in turn, be guided by that model. When biomedical investigations are unable to establish a clear pathology responsible for musculoskeletal pain, case managers may be tempted to minimise or dismiss the person's experience of pain because it "doesn't have a cause", and turn their attention to job seeking or work re-settlement efforts - despite the reality of an individual's functional limitations and emotional distress.

System bias toward biomedical/rehabilitation

Physiological damage does not account for all the variance in the reporting or duration of work disability (Kenny, 1995, p28.). The many and hard to interpret non-medical variables described above would, if incorporated as part

of an explanation for pain-related work disability, provide a more comprehensive understanding of why and how an individual presents. Most individualised treatment for those who *do* report their pain problem is, however, firmly established within a medical model, for example physiotherapy modalities including muscle balance work, “hands on” treatments such as manipulation and heat, and ergonomic interventions such as modifications to desks, chairs or equipment to reduce biomechanical loading on the musculature.

Despite growing awareness of the multidimensionality of pain-related work disability, in order to receive compensation or other individualised forms of intervention, workers *must* see a doctor, obtain a medical certificate or referral, and consequently receive a diagnosis before treatment commences. Even when a workplace has a pro-active health and safety programme in place, interventions are commonly coupled with the prevention of health dysfunction rather than promotion of physical and psychological well-being (e.g. lifting campaigns, “OOS” posters, as compared with stress management, relaxation and fitness programmes). In order to maintain any support provided as part of a compensation or injury management system, individuals must continue to demonstrate that they have a problem - and the compensation systems continue to use predominantly biomedical evidence to either support or remove individuals from its mandate. Norton Hadler eloquently described workers being “sucked into a vortex” as they move from being people, to patients, and then to claimants once they become enmeshed in a system of work compensation (Hadler, 1995).

Each factor above, if viewed independently, indicates different intervention strategies that may be appropriate. For example, under a biomechanical framework, interventions for low back pain will include modifying manual handling loads, heights and distances carried, and the possible use of materials

handling equipment. Cognitive ergonomics would suggest redesign of the work environment and/or the task to afford more appropriate work positions, and reduce the frequency of lifting would be considered. If the tasks are thought to be monotonous, or repetitive, industrial sociologists may develop lifting teams who rotate between manual handling tasks and other tasks for which the team takes responsibility for completing. The most probable model, however, will be the biomedical model in which the individual will be diagnosed with a back strain, advised to take some time off those duties, receive some physiotherapy treatments to reduce pain intensity, and return to the same duties once the injury has “healed”. If the injury does not heal (that is, the pain does not settle), the worker will go through a range of investigations including x-ray, CT scan, or MRI, possibly receive the diagnosis of disc prolapse, proceed to surgery, and continue to stay off work.

Drawing a conclusion

Although there is contradictory evidence for many of the factors outlined in this brief review, one conclusion may be drawn about the reporting and duration of work-related musculoskeletal pain problems: *multiple* factors interact to influence whether and when an individual will report his or her work-related pain, and these factors will include intra personal, interpersonal, organisational, and societal elements. The challenge for researchers and clinicians is to identify ways to structure identification and analysis of the factors described above in each case of work disability (to provide a clinical intervention plan), and to provide information useful for system change.

The worker in context

Any attempt to move beyond a cursory exploration of the factors that influence reporting and duration of pain-related work disability requires some attention be paid to the context of work disability, and the interactions in which work disability occurs (Sanders, 1996). A sociological view of work disability suggests

that it should be viewed as part of a complex system (Williams & Thorpe, 1992). Many models of pain-related work disability, however, paint the worker as the chief protagonist - after all, it is the worker who has sought medical treatment for a pain problem that is somehow interfering with work. This latter view does not acknowledge the role of social influences such as coworkers who model treatment seeking behaviour, or who may urge early medical treatment of a condition (as in the case of occupational overuse syndrome); occupational health and safety efforts to identify the potential hazards and encourage early reporting of discomfort (which may then be identified as occupational overuse syndrome); the workplace that provides selected duties and job rotation only for individuals with identified worker's compensation claims. The "victim blaming" model also ignores the role of health care providers who suggest stopping work as a means to "healing", or suggest a change of job "because this one is not doing you any good" - implying that the work is the cause of the problem, or that work may in fact be harming or damaging the worker.

Kenny suggests there are four primary "players" with somewhat disparate agendas that may be engaged when an individual returns to work (Kenny, 1995).

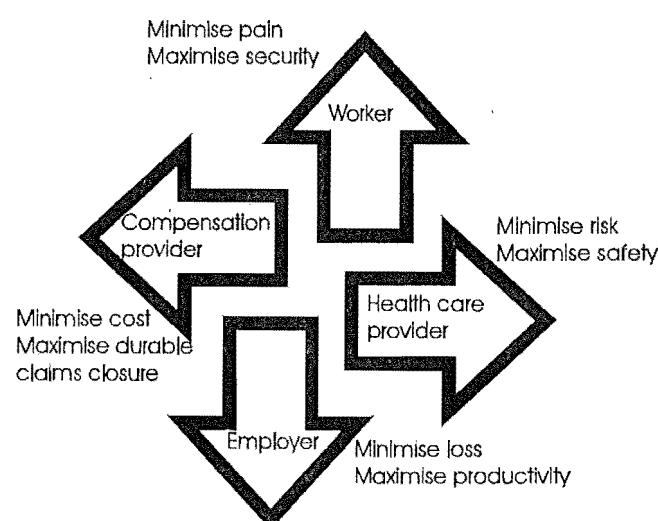


Figure. 2 The four players involved in return to work (Kenny, 1995)

The *worker* is mainly interested in minimising pain and biological or psychological harm, while maximising economic security. The *employer* is interested in maintaining productivity, minimising costs associated with work loss (such as insurance costs and meeting legislative requirements), and maximising human resources. The *health care provider* is interested in minimising the potential for harm to the patient, while maximising his or her treatment outcomes. The *compensation provider* is concerned with minimising claims cost, meeting legislative requirements and maximising stable claims closure. Some of the primary concerns of these “players” place them directly opposite each other, for example, worker - minimise pain; employer - maximise productivity; health care provider - maximise treatment outcomes; compensation provider - minimise claims cost.

Kenny (1995) described both “at risk” employers and “at risk” employees - to which it is equally possible to add: “at risk” compensation providers and “at risk” health care providers.

A “systems blaming” model does incorporate an awareness of the functions of legislation such as compensation and organisational injury management policies which, over time, discourage an individual from taking a risk such as seeking a new job, and attempts to deflect apportioning “blame” from the “victim”. However, the systems view may also discourage individuals from accepting responsibility for managing and influencing change within the system, by making the problems appear solvable only at the system level (for example, through legislation and organisation-wide policy change). Individual “players” may be left with a feeling of impotence, incapable of modifying individual outcomes, developing subsequent low self efficacy and diminished sense of personal control over the future.

What does this suggest about interventions for work disability?

There is little doubt that work disability has developed within a complex system of individual and corporate factors that, together, constrain rapid change. Although the unidimensional medical model does not always provide effective explanations for work disability, it has understandably been accepted as the default position because of its high level of “face validity”, and the system-wide inertia that maintains its dominance. Acceptance of this model, however, constrains management of individuals for whom their work disability is influenced by non-medical factors such as worker’s compensation policy or job dissatisfaction.

In this thesis, case formulation using abductive method is suggested as a useful alternative to a medical model for identifying and structuring clinical intervention. Individualised case formulation on its own does not provide a comprehensive solution to the problem of biomedical dominance of work disability. It does, however, provide an avenue for identifying a broad range of factors that are influencing an individual’s work disability, and can then suggest alternative intervention options - some of which will be unrelated to health or illness. These alternatives may be as varied as vocational direction, assertiveness training for the individual, legislation and policy change from central government, training of line managers and task reorganisation for the organisation, and treatment guidelines and regular peer review for health care providers.

Although changing an entire system of disability management is an enormous task, system change is influenced by individuals. Individuals may be supported to accept appropriate responsibility for taking control of their own futures through provision of information and skills. Opportunities to rehearse and model behaviours that increase individual self efficacy for managing change can be anticipated to have some impact on whether some individuals return to

work. Encouragement to accept appropriate individual responsibility, and promote active choice within a work situation will, in the long term, effect system change when individuals collectively encourage this change (e.g. through union representation, lobbying government, filtering through organisational levels). Paradigm changes occur out of the zeitgeist of a particular time, and reconceptualising work disability as distinct from a purely biomedical problem is certainly a paradigm change!

The need for further exploratory, descriptive research

Further investigation into the ways each of the factors outlined above interact is needed. In the following study a emerging model is developed by considering (1) the factors identified from the literature outlined above, and (2) through exploratory, qualitative examination of individual case formulations. These formulations consider not only the individual, but the ways in which the individual perceives his or her workplace, health care provider and responses from both family and ACC.

Chapter Three

Problem Selection and Formulation Burwood Pain Management Centre and the Problem of Return to Work Outcomes

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Background to the problem

Burwood Pain Management Centre provides interdisciplinary pain management services to over 500 new cases referred each year. Cognitive-behavioural pain management programmes and individual clinical interventions may be provided to those individuals who do not respond to, or are not considered appropriate for, the range of biomedical interventions offered at commencement of treatment. In 1995, a review of the Centre was conducted with regard to developing vocational management or return to work outcomes (Thompson, 1995). It was identified at the conclusion of this review that a large proportion of the individuals seen or referred to the Centre had not been working for many years. A later study by Kendall and Thompson (1998) identified that fifty four percent of those on the waiting list for treatment at the Centre were on weekly compensation, while thirty five percent were either on a welfare benefit or regarded themselves as homemakers. Only around ten percent were in paid employment (Kendall & Thompson, 1998). Although many may have participated in a pain management programme, and expressed a desire to return to work, few actually returned to paid employment despite support from both staff at the Centre, and the services introduced during the programmes.

A fundamental principle of the Centre was the emphasis on individuals moving from considering themselves as *patients* in receipt of passive treatments, to

being *people* using strategies they could implement themselves. A process for identifying the vocational management needs of individuals was needed, and a programme to meet these needs within the self management framework of the Pain Management Centre services was subsequently required.

A very practical problem faced when developing an intervention of this type within the Pain Management Centre was that once individuals had gained maximum benefit from the biomedical interventions offered at the Centre and were referred for cognitive-behavioural management, the biomedical model had little further utility for clinical management. This was quite aside from acknowledgement of the additional non-medical factors identified in Chapter Two. There was no replacement framework from which to explain work disability, and on which a programme could be developed. Answers to the questions: "what is stopping these people from returning to work?", and "is it possible to help them within the framework of pain management?" needed to be explored. The research problem became: "Is there a way to conceptualise work disability so that individuals can develop skills to overcome their challenges for return to work?". The assessment process and programme described in this thesis form preliminary solutions to these problems, and was called the "WorkAbilities" programme.

Long-term, pain-related work disability is influenced by many variables interacting on multiple levels, as identified in Chapter Two. In the absence of a theoretical framework, and in the presence of limited support for using diagnostic labels, *descriptions* of the presenting features (in other words, case formulations rather than diagnoses) of those individuals referred for management of their work disability was an initial requirement. It has been suggested this is a requirement for best clinical practice, and it is certainly an ideal, however stories of multiple ineffective interventions based on assumptions unrelated to any coherent case formulation are common in

clinical practice. Spending resources on structured assessment of the diverse factors that possibly influence each individual would provide a richer source of information for identifying problems and interventions than the traditional case management approach to functional restoration, and hopefully provide more accurate and effective interventions.

From examining a number of these individualised pictures, patterns of the development of *work disability* presentation would be identified as opposed to development of *pain*. Relatively stable features would contribute to a schematic explanatory model, and this model used to develop subsequent intervention strategies. As noted earlier, in “real life” this research process is not so linear, and an intervention programme needed to be developed early on in this study. The programme developed was based on the results of initial interviews with a small group of individuals, and a review of the literature.

Chapters Four, Five and Six describe the research process in three parts, Part A: Initial model development from analysis of interview and questionnaire data; Part B: A descriptive model of work disability; and Part C: Model enrichment from exploratory analysis of intervention outcome data. In documenting a coherent version of the process of programme development, however, it is necessary to first provide background information about the overall methodology employed in the investigation (abductive method), some of the constraints of the clinical setting (characteristics of the participants, referral processes, assumptions about interventions), and the challenge of outcome measurement within this field.

Abductive method for theory development

The abductive method was central to the model development described in this thesis. This is a methodology that provides a framework for theory development across a variety of specific research methods. It consists of four

components:

- (1) problem selection and formulation (Chapters One, Two, and Three of this thesis);
- (2) data collection and exploratory analysis (Chapters Four, and Five);
- (3) phenomena detection (Chapter Five, and Six); and
- (4) theory generation, development and appraisal (Chapter Five and Seven).

It is described as a “problem-oriented endeavour in which explanatory theories are generated from robust data patterns or phenomena, elaborated through the construction of plausible models, and justified in terms of their explanatory coherence” (Ward, & Haig, 1997). The **problem** identified was the clinical situation where individuals with chronic pain problems continued to experience work disability despite having received a range of biomedical and rehabilitative interventions. Data patterns, or **phenomena** needed further description, but initial possibilities could be identified from the existing literature. The analysis of interview data provided a rich source of information about features of work disability. A **model** was required to explain the development of work disability and those factors that were uniquely relevant to the individual involved. Interventions developed from this model needed to be practical, able to be applied within this clinical setting, and the entire process of individual problem identification, intervention and outcome needed to “make sense” (be **coherent**) to both clinicians and participants. A tall order, maybe? It is openly acknowledged that this thesis documents only the first steps toward developing this model of work disability! Abductive method was adopted because it explicitly acknowledges the developmental process and situational context of research. That is, it acknowledges the reality that research may be conducted outside of a controlled laboratory setting, with imprecisely measured variables that cannot be easily manipulated to answer complex research questions demanding pragmatic solutions (something that is familiar to a clinician working in a health care setting!).

Abductive method makes explicit some aspects of the context that frames a research problem and subsequent development of research questions (a process which will include the preliminary “quasi-theoretical insights” (Tukey, 1980) and past experience with the data). In this case, the literature reviewed in Chapter Two indicated that a large number of variables have been identified as having some influence on work disability - and that these should be structured in some way to describe the interactions on each other. The clinical setting places certain constraints on model development in terms of available resources for obtaining and analysing data, and existing treatment philosophy with which the model must be aligned. External influences such as compensation and attitudes of community health care providers also have an influence in terms of expectations from the Pain Management Centre, and ability to provide ongoing support. These are detailed below when the treatment setting is described.

As identified above, one of the constraints was the need to provide an assessment and intervention programme despite the very tentative nature of the model to support that programme. The influential role of ACC on participants' acceptance of a programme designed to challenge their assumptions about work disability, and the influence of previous attempts to return to work including learning effects of employer and family behaviour were also very strong contextual influences on the work disability model.

In addition, early collection and exploration of data is supported in this methodology in order to identify patterns, occurrences, possibilities, unexpected behaviour (Tukey, 1980). The clinical assessment of participants prior to selection for an intervention programme provided data, with qualitative and quantitative information that could be fed back into the model under development, and fed forward to the interventions provided. The case formulations generated explanations for the broadest possible range of patterns

or phenomenon relevant to the problem of work disability, not just those usually considered relevant to pain or disability. As such, assessments could, for example, identify the influence of repeated unsuccessful attempts to return to work on current return to work behaviour, the effect of mood disturbance on pain intensity, energy and subsequent return to work attempts, as well as describing functional limitations arising from catastrophic beliefs about pain. Descriptions explaining how an individual develops and presents with long term work disability are, in essence, models of work disability, or ideographs. When a group of these are collected together and compared, a model that describes and explains the development and maintenance of work disability can be generated.

Finally, in order to determine whether this model is more appropriate than another, it needs to be appraised. Most times in empirical research this is conducted through the use of the hypothetico-deductive method of confirmatory analysis. This is appropriate when theory has developed to the point where a clear experimental hypothesis can be generated - however, there are those that suggest it is important to look not only at empirical adequacy, but other considerations also when evaluating a theory. Thagard (1992) identifies that aspects such as explanatory coherence, breadth and analogy also play an important part in theory appraisal. In the clinical setting in which this study is conducted, the model primarily needed to explain the origins of an individual's work disability, identify specific target areas amenable to intervention, generate possible intervention strategies which could then be applied and the outcomes monitored - while any other explanations afforded by the model could be considered a bonus! Empirical adequacy as tested with a simple experimental design, even if meticulously carried out with a randomised, prospective, trial with control for all possible intervening variables, was unlikely to provide answers to the research questions identified above, because of the complex and tentative nature of a new model of work disability

- research hypotheses suitable for experimental testing could not be readily formulated at this stage.

Abductive method was also used as the clinical reasoning method during case formulation to identify salient presenting features for each individual. This ensured that the broad range of presentations could be described without adhering to any single existing theory base, such as biomedical, rehabilitative, cognitive or behavioural.

Features of the clinical setting

Individuals referred to Pain Management Centre were referred by their general practitioner, medical specialist, or in some cases by other allied health professionals. Their pain problems were chronic (longer than six weeks - mean pain duration for the waiting list group was 73.8 months (s.d.=69.5), Kendall & Thompson, 1998); musculoskeletal in origin, and had not responded to previous biomedical interventions.

All individuals referred to the Centre received a point of first contact appointment with a medical specialist, and were provided with any appropriate biomedical interventions that had not been previously explored (such as medication changes, anaesthetic procedures, referral to other specialists). Those who had completed these biomedical interventions but continued to experience pain-related problems underwent multidisciplinary evaluation of functional, psychosocial, and vocational aspects of the presenting pain problem. Following the clinical and psychometric evaluation, patients were offered a cognitive-behavioural pain management programme or individual therapies such as relaxation training, fitness and exercise programmes, and social work, occupational therapy or psychology interventions. A large interdisciplinary team of was available to provide these services. (See Figure 3, overleaf, for clinical pathways)

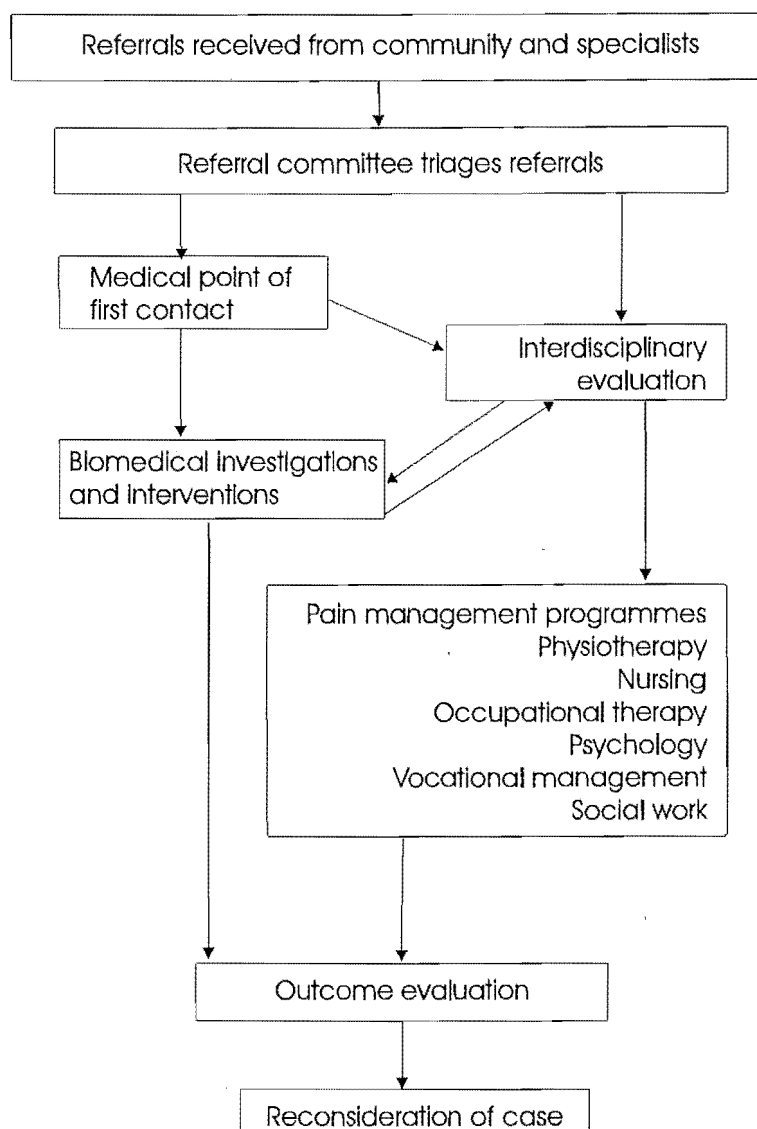


Figure 3. Clinical pathways: Pain Management Centre

The intention of the non-medical approaches was to support adaptation to the problem of chronic pain and to enhance quality of life through self-management. This overall philosophy is well captured by the statement "do not let what you cannot do, interfere with what you can do" (Farley & Curry,

1994). The Pain Management Centre espoused the notion that it is important to "work with the client rather than 'doing to' them" (Pain Management Centre: Annual Report, 1996-1997), and functional outcomes were emphasised rather than exclusively focusing on reducing pain intensity.

Vocational status of individuals receiving interventions at the Pain Management Centre

The 1995 review of vocational management at the Centre identified that the majority of those referred to Pain Management Centre had been off work for more than twelve months, and despite the success of pain management programmes, 38% of individuals who had completed a pain management programme did not return to productive activity (Thompson, 1995). Most did not have jobs to return to (Kendall & Thompson, 1998). In contrast to other countries with strong disability legislation, employers in New Zealand are not obliged to hold a disabled worker's job open for any specified period, which may have contributed to this very high percentage. Thompson's (1995) review indicated that many did not believe it was possible to return to their original line of work because of reduced functional ability. Most were receiving weekly compensation (70% prior to attending the group), and were thus receiving some insistence from ACC case managers to begin seeking work.

Many individuals had attempted to return to the work place before attending the Pain Management Centre, but their attempts had been unsuccessful. Many had participated in return to work programmes devised by their ACC case manager, pursuing career redirection, or job seeking, but the attempts were unsuccessful. Clinicians and participants both described "victim-blaming" (it's all my fault) and "system-blaming" ("they" didn't do their job) as the reason for their lack of success, as did community health care providers and ACC case managers.

Referrals for Vocational Management

Clinicians from a range of professional backgrounds including medical, occupational therapy, physiotherapy, psychology, nursing and social work identified individuals referred to the Centre that they considered had work or compensation-related needs, and could benefit from the targeted vocational management intervention that was the *raison d'être* for the WorkAbilities programme.

Criteria for inclusion and exclusion were developed to ensure participants formed a somewhat homogenous group with respect to "motivation" and compensation issues, and to exclude those with major psychopathology that could interfere with their participation in the programme.

Inclusion Criteria

- personally identified that they wish to return to work
- unable to return to their previous job (have a need to consider career redirection)
- receiving weekly compensation or related worker's compensation benefits (i.e. not be on sickness benefit)
- have no major untreated psychopathology

Exclusion criteria

- inability to indicate personal identification with the goal of returning to work
- previous job available with potential to return to that work
- be receiving sickness or invalid's benefits
- have signs of untreated psychopathology

Table 1. Table of inclusion and exclusion criteria for WorkAbilities Programme

It was decided to *include* only those participants who faced the need to change occupations, and *exclude* those who still had a job available, in order to provide a common focus for the programme. Individuals with jobs have different return to work skill needs from those who have the co-morbid presentation of both chronic pain and unemployment. Despite the methodological limitations of the study design, it has been identified in a New Zealand study that individuals who already hold a job have a greater probability for returning to employment (Friedman, Leadley, Stickney and Austin, 1995).

For similar reasons, participants who were receiving weekly compensation from Accident Rehabilitation and Compensation Insurance Corporation (ACC), state provider of “no-fault” accident compensation, were *included*, while those individuals receiving other state benefits faced different issues when considering return to work and were *excluded* (e.g. those receiving ACC could have active case management, support within the workplace for graded return to work, access to job seeking services).

It was recognised that many individuals with long term pain seen at the Pain Management Centre experience co-morbid psychiatric diagnoses, often dysthymia, or major depression. Many manage their mood problems with a combination of cognitive behavioural approaches and medications. Although they remain vulnerable at times to periods of low mood and increased stress, for much of the time they remain relatively symptom-free. For that reason, it was decided to *include* individuals who had a psychiatric diagnosis, and were receiving treatment, but were symptom-free at the time of evaluation. It was decided to *exclude* those individuals who were experiencing symptoms at the time of evaluation *unless* they were receiving active treatment, either pharmacological review or ongoing psychotherapeutic input.

To facilitate screening for inclusion in the WorkAbilities intervention programme, participants completed a battery of questionnaires relevant to pain management and goal seeking behaviour prior, and were interviewed to develop the specific case formulation and goals for returning to work arising from that formulation. This process is more fully described in Chapter Four. Participants were not obligated to attend the WorkAbilities programme, and individual follow-up was offered for those not selected for, or who chose not to attend the programme. All participants were advised that the programme was a developing one, and information from their participation would be used to modify the assessment process as well as the programme content in the

future.

At the conclusion of the programme, a discharge report was required, detailing the specific return to work plans identified during the programme. The case manager (or another person nominated by the participant) was invited to discuss the report and develop cooperative plans based on it. A final review was held two to three months following completion of WorkAbilities, in which questionnaires were administered and the group facilitated to identify solutions to problems encountered between programme completion and review.

Outcome variables selected for WorkAbilities Programme

There are major difficulties when deciding on appropriate outcome variables for return to work programmes for individuals with chronic musculoskeletal pain. There is some reluctance for pain management programmes to integrate return to work goals with other functional goals partly because of traditional beliefs about pain (supporting the notion that all musculoskeletal pain should be interpreted as indicating tissue damage), and that exertion, even if it is a familiar activity such as work, should be avoided. There are some who suggest that there should be no expectation for individuals with disabilities to work, despite evidence to suggest that the majority of unemployed experience negative psychological sequelae (Banks, 1995; Panzarella, 1991). Others like Fordyce (1995) suggest that all workers with chronic pain should be reclassified as unemployed, relabelling their problem "activity intolerance".

In contrast, funders and purchasers of health care services particularly identify return to work as a critical measure of treatment efficacy. Work status is less susceptible to reporting bias than other self report measures, and can be confirmed by reports from other sources. However, many other factors can influence employment status including local labour market conditions, compensation factors, job satisfaction, and the attitudes of employers toward

individuals with a history of pain and being off work.

An extensive review of return to work outcomes for chronic pain patients treated with nonsurgical techniques in pain centres articulated several important points about the measurement of return to work as a programme outcome (Cutler, et. al., 1994). Firstly, that return to work can be reported in different ways - some studies differentiate between working full time, or working part time, others combine the two. Secondly, the proportion of participants who were working prior to the programme is not always reported. The availability of pre-existing employment opportunities for participants will influence the rate of return to work after intervention. Finally, the durability of return to work outcomes is not always reported - the timing of outcome measurement being critical to establish whether an individual can maintain more than a short term return to work achievement.

The factors that appear to play the most influential role in whether an individual returns to employment or not following cognitive-behavioural intervention are *not* primarily biomedical. Kendall and Thompson (1998) state that "labour market issues, such as the availability of work, combine with the negative effects of unemployment, such as reduced self-esteem and self-efficacy, to produce circumstances that reduce the likelihood of returning to work. Most approaches to health care for these chronic pain cases have traditionally overlooked these issues."(p.9).

Little is known about the *process* individuals with chronic pain-related work disability follow when returning to work, making it difficult to identify transitional outcomes, or those behaviours thought to be associated with returning to work. Although developing pain management strategies and self efficacy for implementing such strategies is undoubtedly required for returning to work, it is suggested that work issues and job seeking behaviours should be

given increased attention.

For this study, given the duration of work disability for most, and the long term focus of the programme, transitional outcomes were identified. There are some advantages in using a psychometrically validated scale such as Vinokur and Caplan's (1987) ten-item scale of job seeking behaviour. In this setting, however, it was decided to use items developed specifically for the programme, because this used the terminology learned during the programme. It is also unclear whether Vinokur and Caplan's scale, developed in the North American job market would be valid within the New Zealand job market (for example, the use of employment agencies, the utility of resumes, compensation legislation, the role of case manager).

Instead it was decided to ask participants to indicate the frequency with which they had engaged in a range of job seeking behaviours, and also whether they had carried out four of the required tasks from the programme that were also thought to enhance job seeking. All of these behaviours have been used in the unemployment literature, although correlations between them and eventual employment have not been consistent (Wanberg, Watt & Rumsey, 1996; Caplan, Vinokur, Price, & van Ryn, 1989; Kanfer & Hulin, 1985; Taris, Heesink & Feij, 1994).

Individual job seeking behaviours used included: completion of curriculum vitae/resume; development of contact list; registration with job search agency; number of days actively job seeking in last week; number of days looking during past month; number of job interviews in last month; number of workplace visits in last month; number of contacts with case manager in last month; able to name three skills; able to identify title of job option.

Participants were also asked to rate their confidence for obtaining work at that

time on a seven point scale, anchored at 0 = not at all confident, and 6 = completely confident to keep trying, as an estimate of self efficacy for job seeking.

This information was obtained from questionnaires collected at the review session, held between two and three months following completion of the programme.

Model development: Assumptions for a new model of work disability

In order to approach the *management* of pain-related work disability from a new conceptual perspective, the *development* and *maintenance* of work disability needed to be re-visited. Several assumptions regarding this process were made.

One assumption of the new model accepted that individuals with pain-related work disability face dual problems - one of pain management (and subsequent adjustments to the restrictions this places on individuals), and one of unemployment (and the challenges faced when considering career change, and looking for work) (Kendall & Thompson, 1998). This is supported by the low return to work rates even of "graduates" of pain management programmes who have developed (and demonstrate from questionnaire results) pain management strategies, and indicate they can use their pain management strategies "at home" but do not believe they can do so at work. Thus, both pain management and employment variables needed to be incorporated in the model.

The second assumption was that the process used by individuals when identifying new work options was analogous to the process of developing a career choice during adolescence and early adulthood. In other words, individuals bring a partially-developed understanding of their capabilities,

interests and expectations to the process. These have developed as a result of their experience of the world and its constraints and opportunities. Individuals then make decisions about choices for the future on the basis of these understandings - imperfect though they may be! All work-disabled individuals have been in paid employment in the past, therefore they also bring learning experiences (personal or vicarious) based on previous career changes, job searches and employment. Overlaying all these elements are the individuals' personal beliefs about their chronic pain problem such as whether activities at work "caused" their pain, whether pain intensity is equal to tissue damage, whether they have control over their pain problem. This indicated that the model needed to examine individual's current beliefs about career choice, identify how this is influenced by past career decisions, and beliefs about future ability to perform work tasks.

A third assumption is that there are external influences which act on the individual during the development of work disability. Engagement with health and/or compensation system requirements, and the existence of roles and expectations imposed by family, friends, co-workers, health care providers, employers and anyone else in the wider social, cultural and political environment are assumed to have a role in work disability. The role of such factors in pain disability is supported by authors like Waddell, Turk, Main and Hadler; it is a feature of the multidimensional models of Stokols and Kenny described earlier; and other models of human behaviour in general also acknowledge the importance of external environmental factors. There is no reason to suspect that work disability is not similarly influenced. This suggests the model needed to consider contextual influences on an individual's action to stop work (and later to return to work) - what advice do people give about working with pain? How do co-workers behave when a worker describes pain? What have interactions with ACC been like? What instructions have been given by medical advisors and other health care providers?

A final explicit assumption of the model is that individuals can develop skills to overcome the effect of those factors that have contributed to their loss of work. That is, it is possible to develop interventions that individuals can learn and use outside of the clinical setting to ameliorate the effects of work disability. The prevailing philosophy of the Pain Management Centre was that individuals can learn strategies to reduce their dependence on health care provision, and the movement from passive treatments administered by professionals to active strategies individuals can use themselves was incorporated in model development from the outset.

A framework model

As a result of these assumptions, and the clinical demands to commence providing interventions shortly after individuals were assessed, a suitable framework model was identified and used during the initial stages of data gathering and model development. The conceptual “embryo” used to structure initial exploration of work disability was social learning theory as it is applied to the acquisition and choice of work goals (Lent, Brown, & Hackett, 1994).

Foundation models employed during the generation of a new model will influence the concepts subsequently explored, and the model ultimately generated. Social learning theory has a number of attractive features to support its use in this setting. It acknowledges the role of the individual as an independent agent with a certain degree of volition, and so intra-personal factors are explored; it also acknowledges the influence of systems external to the individual, thus the need to accept that some external constraints may not be amenable to change; proximal and distal factors relevant to the development and maintenance of the problem may be examined because the model acknowledges predispositions as well as actions of personal agency; and it is possible to examine the entire system at a macro-level while it is equally

possible to examine a portion of the larger system (micro-level) and develop a greater understanding of the mechanisms operating at that level. The theory explicitly acknowledges the reciprocal influence individuals have within their environment.

The model has been used for non-health-related adaptational situations such as job seeking, and it has been used for health-related situations such as maintaining wellness in diabetes. The flexibility to be used in health and non-health settings is important when investigating work disability because of the need to integrate both adjustment to pain disability, and unemployment issues. Importantly for this treatment setting, the model describes human behaviour in terms of a continuum of adaptation rather than using classifications. This enables the interventions provided to be described in terms of *sub-goals* relevant to specific component parts of the model thus implying incremental movement *toward* a goal, as opposed to a *diagnosis* with treatment to "*cure*" or "*not cure*" the problem. This is aligned with the approach advocated throughout the rest of the Pain Management Centre, which emphasised *management* rather than cure for pain.

Boundaries

The practical and theoretical aspects detailed above form boundaries for the model of work disability developed within this clinical setting. As quoted by Ward and Haig (1997) "a problem comprises all the constraints on its solution, along with the demand that the solution be found" (p.95). Clearly the greatest constraint as a result of a model developed within this clinical setting is the limited extent to which the model may be generalised. Clinicians will, it is hoped, apply critical analysis to the model to extend and refine it. However, the *practical* outcome required was a process for assessing and providing interventions to a specific group of individuals with long term work disability within this facility, and it will be on these outcomes (and those obtained from

recommended interventions) that the model will be judged by managers and administrators of the facility.

Chapter Four

Assessment Processes and Model Development
Methods for looking at things differently ...

Chapter Four

Assessment Processes and Model Development Methods for looking at things differently...

Referrals for vocational management, recruitment for WorkAbilities:

Participants in this study were referred to the WorkAbilities Programme by Team members (or self-referred) from within the Centre during the period July 1996 - November 1998.

A sample of fifteen participants who were not selected for inclusion in the programme were identified in order to provide a comparison group for examining the selection process used by clinicians. The data from the first 45 participants who were evaluated and then admitted to the programme were used for analysis. Participants gave their informed consent for use of this information, and were provided with information about the purpose of data collection (see Appendix B). The referral process for WorkAbilities is shown overleaf in Figure 4.

The criteria for inclusion and exclusion have been detailed in Chapter Three.

These individuals represented a sub-group of individuals with chronic pain seen at the Pain Management Centre who had identified that returning to work was a personal goal - many others had not indicated such a desire. This ensured the motivation of individuals participating in the programme was not an overt variable when developing the programme content, nor when evaluating outcomes. All individuals had a diagnosis of chronic musculoskeletal pain, and had been advised there were no further biomedical interventions available for their condition. All had some exposure to the

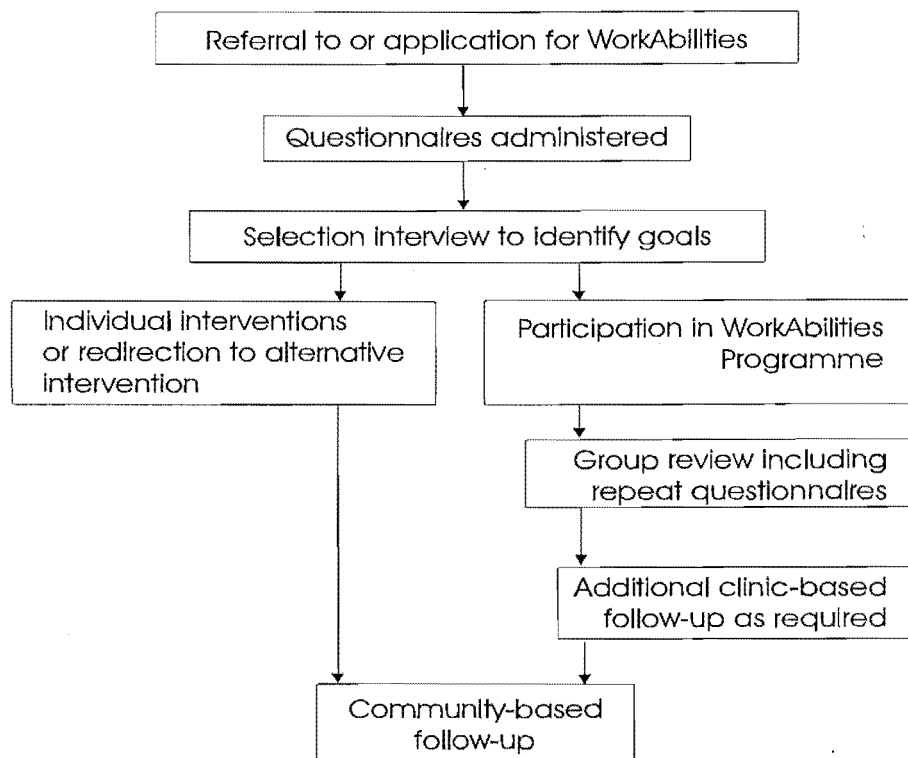


Figure 4. WorkAbilities Programme - from referral to review

concept of “self-management” for their pain, and it was hoped had taken steps to develop active strategies for coping with their pain. It was anticipated that those who had not completed a pain management programme would demonstrate at assessment the ability to use active coping strategies, to understand the concepts of hurt *does not* equal harm, pacing, “do no more on good days than on bad, do no less on bad days than good”, and were aware of the role of biopsychosocial factors on their pain and pain management.

Case formulation in work disability

The clinical assessment process adopted to identify the vocational management

needs of individuals being selected for WorkAbilities also contributes considerably to the methodology used in the model development. It is discussed in detail in this section because case formulation structured the data collection, and because the act of adopting this method in itself had a substantial impact on the developing model.

Work disability is not a diagnosis. Low back pain, regional pain syndrome, reflex sympathetic dystrophy and fibromyalgia are labels far more commonly used to explain why an individual has stopped work. As stated previously, however, categorical labels such as these provide little on which to base clinical interventions.

Many factors clearly influence when or if an individual chooses to report their pain. Some find their functioning is affected so much that they wish to take time off work - because of the New Zealand health and compensation system, these individuals are compelled to consult a doctor for medical certification. The act of seeing a doctor, and (usually) filing a claim for compensation, means management of the problem is usually biomedical.

As a result, an individual may then receive a wide range of interventions: medications, manual therapies, exercise programmes, surgery, and so on, until a full range of biomedical treatments have been offered. Many are advised at some point to stop work, only to find that their pain and disability continue. Many later lose their employment.

Some people, however, return to work despite high levels of reported pain - they say things like "I just decided I needed to get on with it myself", "the pain still bothers me but I wanted to get back in control". Conversely, others never return to work saying "I can't do my old job, it's too heavy", "I loved my old job, never wanted to do anything else but no employer wants me when I say I

have [pain]", "I'm never going to go back to how I was when I stopped work, the job has to be just right, and it would have to be an understanding employer...". As identified by Rowland Hazard and colleagues (Hazard, Haugh, Green, & Jones, 1994), the correlation between pain intensity and disability is not strong.

Case formulation has traditionally been used to identify psychological mechanisms thought to be underlying (usually) a psychopathological presentation. It may, however, be useful when considering an individual's work disability. Ward & Haig (1997), state that "the result of psychological assessment is the development of a conceptual model representing the client's various complaints and their relationships to each other" - and subsequent treatment options (p.93).

Case formulation origins and application

Psychological case formulation was originally developed by behaviour therapists because of frustration experienced when using medically-based diagnostic labels for treating problem behaviours. Diagnostic labels have been called "a shorthand description of various behaviours that coexist in an individual" (Turkat, 1990, p.17) and useful for "communication and classification" (Adams, 1981, cited in Turkat, 1990), but were not found useful when working with an individual and his or her unique presentation (Brusch, 1998). This is certainly evident when clinicians are faced with terms like "chronic low back pain", "regional pain syndrome" and "reflex sympathetic dystrophy". Even these labels are not always considered diagnoses, and thus even more strongly represent "a shorthand description of behaviours".

Behaviour therapy and researchers developed operationalised behavioural descriptions to meet their need for a more useful nomenclature than psychiatric diagnoses. These later developed into closely specified protocols

that enabled researchers to meet the statistical requirements of “pure” research and provide empirical evidence for the effectiveness of these approaches - but few clinicians could apply the complete protocols to their rather more widely differing clinical client groups.

Victor Meyer, a clinical psychologist in the late 1950's and later, spent the majority of his time working in clinical behaviour therapy. He was influential in the development of individualised treatment by suggesting the key clinical questions should be: *what treatment, by whom, is most effective for this individual, with that specific problem, under which set of circumstances, and how does it come about?* (Meyer, 1975, p.16)

The term “case formulation” was introduced by Turkat in 1985 and the process was defined as being composed of three elements:

- (1) a hypothesis about the relationship among various problems of the individual; (2) Hypotheses about the aetiology of the aforementioned difficulties; (3) Predictions about the patient's future behaviour. (Turkat, 1990, p.17)

This is the term that has become widely used to refer to the process of assessment, and development of individualised treatment plans in clinical psychology.

Recently, Ward and Haig, (1998) have challenged the hypothetico-deductive assumptions on which the Turkat (and others) model is based. They argue that as a result of relative lack of attention to theory or hypothesis generation because of over-emphasis on hypothesis testing, clinical reasoning “essentially begins with the generation of hypotheses rather than with the detection of patterns in the data [and subsequently] that clinicians are given very little guidance in the generation of their initial hypotheses” (Ward & Haig, 1997, p.95).

Haig and Ward (1997) draw attention to the strong assumption of the hypothetico-deductive method that observed data may be explained by scientific theories. This stance ignores an important distinction that they draw between data and phenomena. Ward and Haig state phenomena are not observable, as a general rule, and are “those stable, recurrent features that may be being identified or explained by a theory” (Ward & Haig, 1997, p. 95). Data, on the other hand are those physically observable, idiosyncratic recordings of reports that provide evidence for the phenomena under investigation. For example, the following data:

- (1) high levels of physiological arousal during initial interview,
 - (2) increasing distress when asked to perform functional tasks while being observed,
 - (3) reported fears of performing poorly in interactions with employers and supervisors,
 - (4) receiving a high score on a social anxiety scale,
- suggests the underlying phenomena of fear of negative evaluation (or social anxiety).

Withdrawal from work is a phenomenon that needs to be explained by more than the presence or absence of pain. The medical certification indicating “unfit for work - disc degeneration” or more commonly “unfit for work - low back pain” provides little scope for developing interventions other than pain relief, or seeking less physically demanding work. This is what is usually recommended to an individual who has stopped work. The “data” that the individual reports is his or her experience of pain, and withdrawal from work, however the “phenomenon” to be explained is the process of withdrawing from work.

A case may illustrate this more clearly: an individual may describe excruciating, stabbing pain through his buttock and down his leg that has been

present for the three days prior to attending a doctor. He has been working those past three days but made the decision only today to see his doctor and stop work. The description, location and duration of pain intensity and quality are data. That he has remained at work for three days is data. That he is seeking medical help is data. That he has stopped work now is data. The phenomenon to be understood is: why does this data present in this way? Why did this individual stop work? Why is this individual asking for time off work now? What effect will the advice of his doctor, family, workmates have on his return to work (and what influence have they had already?). An understanding of these mechanisms would provide considerable information about what interventions will be suitable to reduce the time this individual spends away from work.

A comprehensive explanation of the mechanisms by which an individual arrives at long term work disability should provide a range of possibilities for both psychological and rehabilitative efforts.

The WorkAbilities Evaluation process uses Ward and Haig's depiction of clinical abductive method reasoning to "reason[ing] from an inferred effect (the phenomenon) to its explanation in terms of an underlying cause" (Ward & Haig, 1997, p. 95). The clinical procedures used in the WorkAbilities programme are described below.

Evaluation process

Individuals were referred for consideration for WorkAbilities according to the criteria detailed in Table 1 in Chapter Three. A series of questionnaires and a semi-structured interview based on factors identified from the review of the literature, were developed to act as a "net" to identify factors relevant to each individual's experience of work disability. Case formulations were then developed to explain the development of and current problems (challenges)

faced by that individual in returning to work. Individualised goals for return to work were developed based on this formulation, and if appropriate, individuals were invited to participate in the WorkAbilities Programme. Those individuals who were not invited to participate in the Programme were offered individual follow-up.

Data collection

All participants referred for WorkAbilities were administered the set of questionnaires usually used within the Pain Management Centre for pain management. The questionnaire set was to be returned prior to the semi-structured interview and goal setting session. The interview was conducted in the month prior to commencement of the WorkAbilities Programme. Information obtained from both psychometrics and semi-structured interview was used to select participants for the WorkAbilities Programme.

Follow-up questionnaires (a repeat of the pre-programme battery, with the inclusion of additional items about job seeking behaviour) were administered between two and three months post-programme as part of the routine outcome evaluation of the facility.

Questionnaires

All of the questionnaires used have been previously validated for the chronic pain population, with the exception of the outcome measures of job seeking behaviour which was developed from items used by Caplan, et. al. (1989) in previous research into job seeking.

1. *Demographic information* including age, gender, duration of pain problem, site of pain problem.

Pain and disability measures

2. *Visual Analogue Scale - Present*. Present Pain Intensity measured by a Visual Analogue scale on a 10 cm line, with the verbal descriptors "No Pain" and "Worst Possible Pain" at the end-points (McDowell & Newell, 1996; Price & Harkins, 1992; Chapman & Syrjala, 1990)

3. *Zung Self Rating Depression Scale - ZSDS* (Zung, 1965) is a well-known measure comprised of 20 items with ten worded negatively, and ten worded positively. Respondents indicate the frequency with which they experience the symptom or feeling described in each item. Several studies have estimated the internal consistency of the ZSDS, and alphas ranging from 0.75 to 0.95 have been reported in samples of 100 to 225 (McDowell & Newell, 1996).

4. *Pain Self-Efficacy Questionnaire - total* (Nicholas, Wilson & Goyen, 1992) is a measure of self-efficacy belief about engaging in a range of general activities *despite experiencing pain*. Respondents rate each of ten items on a 7-point scale, anchored at 0= "not at all confident" and 6= "completely confident". The questionnaire is scored by summing the answers for all ten items, with a maximum possible score of 60. In an unpublished paper by Nicholas, alphas of between 0.67 to 0.84 were obtained.

5. *WestHaven Yale Multidimensional Pain Inventory - Axis I, Psychosocial; MPI - Axis II, Behavioural*. The MPI (Kerns, Turk, & Rudy, 1985) is a 52 item, 12 scale inventory divided into three parts, each containing several scales. Part I consists of five scales designed to evaluate various dimensions of the pain experience: pain severity; perceived interference in vocational, social, recreational, marital and family functioning due to pain; life control with regard to activities of daily living and daily problems; affective distress; and, support and concern from significant others (Kerns & Jacob, 1992). Part II contains

three scales: punishing, solicitous, distracting responses. These are designed to assess patients perceptions of the responses of others to their pain behaviours. Part III assesses patients perceptions of their present activity levels.

6. *Goal Systems Assessment Battery* (Karoly, P. & Ruehlman, L.S., 1995) GSAB - Value; Self efficacy; Social comparison; Self monitoring; Planning; Self criticism; Self reward; Positive arousal; Negative arousal; measures nine scales over four goal-related functional capabilities thought to account for initiating and maintaining goal-directed behaviour. The *directive* subscale measures value and self-efficacy of a specific goal; the *regulatory* subscale measures the use of planning and self-corrective strategies to achieve the goal; the *control* subscale selects self-rewards and self-criticism that works to control any discrepancy between a goal "set point" and the current status. In this study, participants were asked to "think about your goal to return to work", and asked to rate 36 statements on a five point scale where 0 = "not at all true for me" and 4 = "describes me very well". Alpha's of between .68 and .89 were obtained for the GSAB (Karoly & Ruehlman, 1996). Karoly and Ruehlman point out that goal cognition is likely to be a more temporal state than personality traits, thus test-retest reliability may not provide an accurate reflection of the construct. The GSAB has been used specifically to measure the motivational implications of pain with respect to chronicity, psychological distress and work goal construal (Karoly & Ruehlman, 1996). This study demonstrated that pain chronicity was associated with negative work goal construal, and notably with lower scores on the goal-related value and self-efficacy (directive) scales, as well as lower scores on positive arousal and higher scores on negative arousal (control) scales.

Questionnaire results were available to clinicians prior to clinical interviewing, enabling the clinician to probe in further detail any areas from the results that were either of concern or were anomalous.

The screening interview

A semi-structured interview was developed to ensure clinicians systematically evaluated a broad range of factors thought, from the literature and preliminary interviews with participants, to be important in determining effective pain management and return to work outcomes. Open-ended questions were used, and clinicians were advised to reword, or use additional questions to encourage open disclosure. Clinicians took notes on the interview sheet during and immediately after the interview. Interviews were conducted over one hour, in a quiet interview room. Participants were invited to bring a support person (spouse or friend) to the interview. The term “features” or “presentation” is used by clinicians to avoid negative labelling and to promote the “demedicalisation” of work disability.

Part one of the interview covered a brief history of the development of the problem, interventions received and their outcomes, exploration of the pain problem including interference with daily life, coping strategies used, and understanding of their condition. Mood, anxiety and response to pain management interventions including medications used was also covered.

Part two was concerned with the development of work disability, with a brief history of how the participant stopped work, advice at the time, employer and coworker attitudes, attempts to return to work and outcomes, response from ACC case manager, their understanding of health care professionals instructions about return to work, attitudes and intentions towards the job at the time of developing the problem and stopping work.

Part three covered the value and meaning participants placed on work at the time of interview, estimating expectancies for returning to work: “Do you think you will return to work? Full time or part time work?”; identifying potential barriers to returning to work: “What will be your challenges for returning to

work?"; and working to develop appropriate goals based on these barriers.

The critical questions posed to the individual during clinical interview were:

- (1) "what are the major barriers you see getting in the way of returning to work?"
- (2) "why do they pose such a barrier?"
- (3) "what ways can you see to get around them?"
- (4) "have you ever been in a similar situation before?", and if they had, "how did you manage then?"

The individuals' beliefs and understanding of his or her situation was considered important, as in many cases individuals described similar actions by, for example, a case manager - but interpreted this action in completely different ways depending on their understanding of the case managers' intentions. Their responses provided the basis for identifying *mechanisms* by which the work disability developed.

After team discussion, development of an intervention plan and goal establishment, clinicians provided feedback to participants who were advised whether they had been selected for WorkAbilities. Those who had not been selected were provided with other appropriate individual interventions, or referral to other agencies. All participants were given their individualised goal sheets to take away to share with their family, ACC case manager and health care providers.

Stepping back: clinical abductive method in the WorkAbilities case formulation process

The WorkAbilities assessment and intervention process is described in terms of the four steps in abductive method identified by Ward and Haig (1997).

Step One - Identify functional presentation (Phenomena detection)

Robust data detection procedures are required to ensure an individual's functional presentation is described accurately, reliably and to ensure that relatively stable phenomena are identified. Clinical interviewing, self report questionnaires and report from spouse or significant other provides "data triangulation" to identify phenomena. That is, reducing the potential for artifacts of the setting or tests used to be mis-identified as important clinical variables.

In WorkAbilities, the self report questionnaires, and semi-structured interview and history are combined with observation to provide multiple sources of data from which phenomenon may be identified.

The semi-structured interview used for the WorkAbilities Evaluation was drawn from factors identified in the literature thought to be important in pain-related work disability, which were then combined with a detailed history of the development and current status of the individual's work disability. Factors drawn from the embryonic model of work disability based on Lent, Brown and Hackett's (1994) model of career choice were also explored, for example compensation issues, issues with the previous employer, family demands, self esteem, self efficacy, learning experiences and past work experiences.

Hypotheses are generated during the very early phases of data collection. Ward and Haig (1997) suggest that hypothesis development at this time should be directed towards getting a better *description* of the client's presentation rather than as explanation. Thus, responses were used to guide the clinician toward obtaining an in-depth description of the presentation rather than a clinical diagnosis. Unusual or anomalous results from questionnaires were used to guide clinical interviewing to establish the stability or robustness of those features of the individuals' presentation. The patterns or themes

detected from this process provided a basis for generating explanations.

Step two - Generating explanations for the presenting features (Theory generation)

In work and pain management these explanations will include biological, psychosocial, behavioural and functional factors including workplace systems. It is possible to identify a large number of possible hypotheses some of which are unable to be pursued because of practical considerations relevant to the setting.

The WorkAbilities Programme used two structured data gathering tools to identify explanations that could be explored at the Pain Management Centre. The first was a summary sheet on which features identified by the clinician from questionnaire responses and interview data were noted. Factors were summarised into: attitudes and beliefs, behaviours, compensation issues, diagnosis and treatment, emotions, family and work - with additional room for "other" categories identified from the interview. The headings served as an "aide memoire" to remind clinicians to systematically review the clinical relevance of areas that, from the literature, appeared important. The relationships *between* these factors were then sketched out pictorially in order to identify underlying mechanisms in operation.

The second was a goal sheet that was used to prioritise and focus treatment direction based on the findings on the summary sheet, and was developed with the participant. Functional outcomes that may be measured were identified over a broad range of areas, such as medication use, sleep, motivation, emotions, exercise, daily activity level, and coping strategies (see Appendix C).

Step Three - Generating a unique clinical model of presentation (Theory development)

In the WorkAbilities Programme, the findings of the questionnaire and interview process, in simplified form, were shared with the individual, and further adjustment of the basic conceptual model was made. Where possible, information from the evaluation process was presented to the rest of the team who could also contribute to the generation of potential explanations for the presentation. Goals were then identified and approaches developed to address the underlying phenomena, using the individualised model to guide both the selection of treatment approaches, and the priority various goals must have. This was carried out in collaboration with the participant. For some individuals, participation in the WorkAbilities group programme was considered appropriate, but for others individual interventions or a combination of the two were recommended. Still others were referred to alternative, more appropriate agencies in the community.

Step Four - Outcome evaluation (Theory appraisal)

Finally, reviewing the results of intervention provides a way to appraise the accuracy or usefulness of the formulation. In the WorkAbilities Programme, this was conducted during the programme in collaboration with the participant, who identified how well he or she had reached goals established at the assessment interview, immediately after the programme while collaboratively writing the discharge report and return to work plan, and at structured follow-up where questionnaire responses were obtained and compared with the original responses. In cases where goals established by the participant were not achieved, alternative explanations were considered to identify alternative explanations and interventions.

Data collection for model development

Questionnaire responses, and interview notes taken during the above

assessment process were analysed as part of model generation and development. Each participant in the programme had a unique model of their work disability described during case formulation, but common themes and patterns were evident after a number of individuals had been assessed. Exploratory analysis of this data is given in Chapter Five. Content analysis incorporating some grounded theory concepts was used in the analysis of interview data. It was carried out retrospectively, and the limitations of retrospective, and content analysis is acknowledged. Clinical resource constraints played a large part in determining the data available and the methods which could be employed in analysis. A description of the process used is described below.

Pattern detection

The abductive method of scientific research suggests that initial exploration of data provides evidence for stable, recurring characteristics or features of an event, situation or individual under examination (phenomena). For the population studied in this setting, phenomena previously detected were the presence of a chronic pain problem, receipt of biomedical intervention but continued experience of functional problems, exposure to cognitive behavioural pain management strategies, not working, did not have jobs to return to, and had expressed a desire to return to the workforce but had not achieved this goal.

The question that developed from this phenomenon was then, “How did this presentation (phenomenon) develop?” The following section will explore the data patterns identified from assessment information obtained from participants of the WorkAbilities programme.

The data will be presented in two parts: Part A: description of the development of work disability; and Part B: factors maintaining work disability. Chapter Six

describes the generation of an exploratory, descriptive model of work disability developed from Parts A and B, and relevant literature reviewed earlier.

Part A: The development of work disability

Overview

The results of this part of the study indicated that the work disability develops separately from the development of pain - however, work disability is most often attributed to the presence of pain, even when the worker is aware of the impact of other factors. Individuals reported being influenced by internal beliefs, health care providers, case managers, family, coworkers and the employer. The belief that hurt equals harm was a key factor in determining work disability, while personal expectations and beliefs of the individual mediated the decision to withdraw from work. This was further influenced by their perceptions of support (agreement with withdrawal from work, social inclusion), or punishment (urging to remain at work, social isolation). Although the actions of the latter may have been intended to be seen as supportive, it was perceived as punishing towards their pain problem and therefore unsupportive.

Questionnaires

Questionnaire data is presented first, with qualitative data following.

Tables 2. Demographic data for those selected for and those excluded from WorkAbilities Programme

	Selected for programme (N=33) Mean (s.d.)	Excluded from programme (N=10) Mean (s.d.)	ANOVA F(1,41)
Mean Age in years	39.97 (9.92)	41.3 (11.01)	n.s.
Mean pain duration in months	54.88 (52.19)	56.1 (38.95)	n.s.
Mean number of jobs held before this period of work disability	2.88 (2.22)	3.44 (2.13)	n.s.
Mean months since last worked	27.33 (30.31)	33.5 (15.87)	n.s.

Demographic data

There were no significant differences between those selected for the

programme, and those excluded from the programme in relation to age, gender, pain duration, pain site, occupation, number of jobs, months since last worked or participation in a Pain Management Programme.

		Selected for programme (N=33) Mean (s.d.)	Excluded from programme (N=10) Mean (s.d.)	
Gender	Males	39.39%	60%	Chi-Square (df=1)=1 .32; p=.25
	Females	60.61%	40%	
Primary Pain Site (IASP Coding)	Cervical region	6.06%	0%	
	Upper shoulder & upper limbs	60.3%	40%	
	Thoracic region	0%	0%	
	Lower back, lumbar spine, sacrum & coccyx	57.58%	50%	
	Lower limbs	6.06%	0%	
Occupational code (NZSCO)	Group 2 - Professionals	12.12%	0.00%	
	Group 3 - Technicians	6.06%	0.00%	
	Group 4 - Clerks	15.15%	0.00%	
	Group 5 - Service and sales staff	15.15%	20.00%	
	Group 6 - Agriculture and fishery workers	3.03%	10.00%	
	Group 7 - Trades workers	15.15%	30.00%	
	Group 8 - Plant and machine operators	21.21%	30.00%	
	Group 9 - Elementary occupations	12.12	10.00%	
Previous Pain Management Programme	Residential Programme	36.36%	60.00%	
	Outpatient Programme	54.55%	10.00%	
	Did not attend a programme (direct referral)	9.09%	30.00%	

Table 3. Demographic data for those selected for and those excluded from WorkAbilities Programme

Chi-squares were unable to be computed for pain site, occupational code and pain management programme because of small size of excluded group, and large number of categories.

Demographic data continued

Most participants were female, with a mean pain duration of 98 months (s.d. 52.21 months). The mean number of months since these individuals last worked were 27.33 (s.d. 30.31), indicating that individuals experienced their pain problem for some two years on average before they stopped work. This supports the suggestion that factors other than pain intensity precipitate stopping work.

Most participants had either low back pain or upper shoulder/upper limb pain. IASP codes for pain sites were used rather than diagnosis, so it would be conjecture to suggest that upper shoulder/upper limb pain was equivalent to a presentation of occupational overuse syndrome.

Thirty six percent (36%) of participants had participated in a prior residential Pain Management Programme, while fifty five percent (55%) had participated in an outpatient Pain Management Programme. Nine percent (9%) had been referred directly to the programme without attending a pain management programme.

Occupational codes - The New Zealand Standard Classification of Occupations was used to identify the previous occupations of participants referred to the WorkAbilities Programme. Major groups only were used. This classification system is limited by the use of groupings based on functions rather than task demands (compared with the American Dictionary of Occupational Titles (DOT) which provides some description of task demand for each occupational title). However, many of the occupational titles used in New Zealand do not readily translate into the American classification system, and these individuals had been employed in New Zealand jobs. Although much of the

rehabilitation literature uses the DOT, this is possibly because of the volume of North American literature that is disseminated, and it is not used by European or Skandinavian countries where much research uses the International Standard Classification of Occupations, published by the International Labour Office.

Group 2 - Professionals includes science professionals, life science and health professionals, teaching professionals and other business, legal, information, social and religious professionals. Most of these occupations require tertiary training and relevant experience.

Group 3 - Technicians and associate professionals include those providing support for professionals identified in Group 2 requiring a National Certificate, Diploma or similar, and experience.

Group 4 - Clerks include office clerks such as secretaries, and typists; and customer services clerks such as cashiers, tellers and receptionists. No formal qualifications are required, but on-the-job-training is necessary.

Group 5 - Service and sales workers. No formal qualifications are required.

Group 6 - Agriculture and fishery workers include horticultural workers, livestock farmers, forestry occupations and fishery and hunting workers. A range of formal training and on-the-job-training is required for these occupations.

Group 7 - Trades workers include the building trades, metal and machinery trades, precision trades (such as printing, jewellery making), and all other remaining trades. A Trade Certificate, on-the-job-training and/or apprenticeship are required to engage in these occupations.

Group 8 - Plant and machine operators include all those operating equipment as the primary component of their job such as drivers, plant operators, miners, textile machine operators etc. There is no requirement for certification, on-the-job-training is the primary prerequisite.

Group 9 - Elementary occupations include primarily unskilled or semi-skilled work such as machine sewing, labourers, caretakers, and cleaners.

There were four occupational groups represented in the excluded group - service and sales workers, agriculture and fishery workers, plant and machine operators, and elementary occupations. Visual inspection of the distribution suggests that this may be an artifact of the small sample. The selection group were unevenly distributed across all occupational groups, with a greater representation in those groups requiring fewer qualifications, particularly groups 7 and 8 (trades workers and plant and machine operators). This is similar to the profile of occupations identified by ACC as having the greatest proportion of claims (ACC, 1998b).

Summary of questionnaire presentations (Tables 4 and 5)

Pain related measures: The majority of individuals evaluated for WorkAbilities were classified in the Dysfunctional category of the MPI (Kerns, Turk, & Rudy, 1985). This category identifies individuals with high levels of pain severity, interference and affective distress, and with low levels of life control. This suggests individuals may experience high levels of disability in comparison with their pain intensity, feelings of lack of control over their life and their pain, and feelings of helplessness and frustration. The next largest group were those classified as Interpersonally Distressed by the MPI. These individuals present with low levels of perceived support, and endorse high levels of punishing, and low levels of solicitous and distracting responses from their significant others. That is, it is possible they may perceive the actions of others as unsupportive and disbelieving of their problem, and although this measure identifies only the responses of partners, it is possible that other family members and significant others involved in returning to work could be perceived in a similar way.

Table 4. One-way ANOVA table of pain-related measures obtained at Evaluation for those selected for and those excluded from WorkAbilities Programme

	Selected for programme (N=33) Mean (s.d.)	Excluded from programme (N=10) Mean (s.d.)	ANOVA F(1,41)
Mean visual analogue scale - present	59.21 (18.38)	56 (13.88)	n.s.
MPI - Severity	44.4 (8.05)	47.36 (6.12)	n.s.
MPI - Interference	46.62 (8.97)	51.55 (3.43)	p=.0991
MPI - Life control	53.03 (5.75)	50.8 (8.16)	n.s.
MPI - Affective distress	44.15 (8.91)	47.61 (9.87)	n.s.
MPI - Support	48.9 (7.93)	46.44 (14.36)	n.s.
MPI - Punishing responses	51.07 (8.96)	54.58 (9.62)	n.s.
MPI - Solicitous responses	46.86 (8.59)	47.37 (10.08)	n.s.
MPI - Distracting responses (s.d.)	50.98 (8.77)	48.6 (9.44)	n.s.
MPI - Household chores (s.d.)	55.87 (6.74)	48.69 (8.58)	p = .0097
MPI - Outdoor activities	54.52 (7.87)	48.85 (6.4)	p = .0473
MPI - Activities away from home	51.39 (9.65)	44.65 (4.15)	p = .0399
MPI - Social activities	54.87 (10.42)	48.47 (9.34)	n.s.
MPI - General activity level	55.95 (7.38)	47.06 (6.49)	p = .0016
Mean Zung	44.58 (9.71)	49.8 (7.83)	n.s.
Mean PSEQ	33.88 (11.52)	28.2 (13.41)	n.s.

Mean pain self efficacy as measured by the Pain Self Efficacy Questionnaire (Nicholas, 1992) was slightly above half way on the scale. Nicholas suggests that scores of 34 and above indicate potential for returning to work. The mean achieved was somewhat surprising given the responses obtained through interview which suggested that individuals perceived that they could manage their pain at home, but not necessarily in any other setting. Mean visual analogue score for present pain was 59.21 (sd=18.38) indicating moderate levels of pain, and it is interesting that scores for those selected for the WorkAbilities Programme were actually slightly (although not reaching significance) higher for pain intensity compared with those excluded from the

programme. This suggests that pain intensity may be a misleading measure of readiness for return to work.

Table 5. Multidimensional Pain Inventory Classification of participants selected for and excluded from the programme.

		Selected for programme	Excluded from programme
MPI - Classification	Dysfunctional	18.18%	40.00%
	Interpersonally distressed	36.36%	10.00%
	Adaptive copers	9.09%	10.00%
	Hybrid and unanalysable	6.06%	30.00%

Goal related measures

Measures related to establishing and maintaining goal-directed performance (Table 6.) suggest that while the majority of individuals valued returning to work (which is unsurprising given that they were referred on the basis that they had expressed a desire to return to work), self efficacy for this goal was considerably lower. That is, individuals believed the goal was important but did not necessarily believe that they would be successful in achieving the goal. There were significant differences between those individuals selected for the programme and those excluded in terms of scores achieved on self efficacy, planning, self reward, positive and negative arousal subscales, with those excluded being significantly lower for all but negative arousal (that is, in the expected direction). Scores for social comparison were particularly low (mean = 4.67, s.d. 3.86) for these individuals, in comparison with those achieved by Karoly and Ruehlman (1996) for work goals of individuals with persistent pain (N=62, mean = 6.85, s.d. 3.92).

Table 6. Comparison of GSAB scores for those included and those excluded from WorkAbilities Programme

	Included in programme (N=33) Mean (s.d.)	Excluded from programme (N=10) Mean (s.d.)	ANOVA F(1,41)
GSAB - Value	14.24 (2.19)	13 (3.06)	n.s.
GSAB - Self efficacy	10.97 (2.89)	7.4 (3.53)	p = .0023
GSAB - Social comparison	4.67 (3.86)	5.8 (2.9)	n.s.
GSAB - Self monitoring	9.3 (2.44)	8.4 (3.03)	n.s.
GSAB - Planning	10.7 (2.91)	8 (2.83)	p = .0135
GSAB - Self criticism	8.39 (3.04)	10.8 (5.29)	n.s.
GSAB - Self reward	7.27 (3.32)	4.8 (2.94)	p = .0406
GSAB - Positive arousal	12.15 (2.95)	8.3 (4.03)	p = .0019
GSAB - Negative arousal	9.18 (3.29)	11.9 (4.65)	p = .0447

Qualitative analysis of semi-structured interviews

Five main groupings (see Table 9) describing the development of work disability were identified by content analysis of the interview notes written during semi-structured interviews of individuals referred for the WorkAbilities programmes.

This process used recording sheets onto which "key phrases" describing processes and influences on presenting for medical treatment, and later work disability, were transcribed for each individual. A separate "key phrase" was used to represent each distinct factor or influence described in the interview notes. For example, the notes included references to "supervisor made me see the company doctor" which would have been recorded as supervisor - workplace factor, individual response - external control, doctor - workplace factor.

Each individual recording sheet was then combined with others on a master

whiteboard with “key phrases” clustered under descriptive headings or categories. Categories which were identified as similar were combined, while entries under that combined heading that did not fit into the category were set aside. Each descriptive heading was reviewed to ensure all the key phrases were adequately described. Again, entries which did not fit into the category were set aside. These entries were then individually reviewed for inclusion in existing categories. This process was repeated until there were only a handful of excluded entries. These entries were scrutinised carefully to establish any link between them, and then set aside. Nine categories were identified as influences on the development of work disability, and within these categories, five distinct patterns of the development of work disability were identified.

The five groups identified represent the onset of work disability, as differentiated from the onset of pain or injury, although the participants in the study did not make this distinction, and largely attributed their work disability to the development of their pain problem.

Tables 7 and 8 overleaf summarise the analysis of the interview material.

Table 9 below, identifies the five groups.

Table 9. Five categories of onset of work disability

Onset of Work Disability (N=42)	
30%	<i>Gradual onset-</i> "I didn't really know what was happening until someone told me it was ..."
20%	<i>Sudden, dramatic, disabling</i> "It came out of the blue"
25%	<i>Returned to work at first</i> "The Doctor told me to stop"
15%	<i>Unsuccessfully returned to work</i> "They fired me"
10%	<i>Maintained work with difficulty</i> "I just kept going until I had to give up"

In the following sections, the onset of injury, precipitant for seeking help, reason for seeking help, subsequent work behaviour and reasons for withdrawing from work are described for each group. External influences such as health care provider, employer, coworker, case manager and family response are described separately, as distinctions between groups are less clear than for the other factors.

The five major groups

(1) *Gradual onset* - "I didn't really know what was happening until..." This group included individuals with occupational overuse syndromes (OOS) or regional pain syndromes, intermittent back/neck ache, and headache. These presentations are characterised by insidious onset, periods of remission, and some deliberation on the part of the individual as to whether to seek medical help. An awareness raising event such as a publicity campaign for OOS, coworkers or acquaintances presenting with similar problems, sudden increase or change in work-load, change in organisational structure or technology, or discussion with a health care provider such as a general practitioner or an occupational health nurse were precipitants for reporting the problem.

Individuals described the problem they were developing as "a mystery", "I didn't know what was going on", "it was only after a year off that someone told me I had OOS". Those that did identify the problem as a chronic pain problem mostly expressed great concern at the probable prognosis "you never get rid of this, you're stuck with it for life", "no employer will have you work for them with this diagnosis", "it labels you ... people think you've got head problems or you just want to avoid work". Workers indicated an expectation that they would "have to stop work" and would need to look at alternative work.

Categories	Group 1	Group 2	Group 3	Group 4	Group 6
Onset of injury	Gradual	Sudden	Returned at first	Unsuccessfully returned	Maintain with difficulty
Precipitant for seeking help	Publicity Others with similar problems Change in workload Health care provider	Acute injury Functional loss	Publicity Others with similar problems Change in workload	Employer "too demanding" Employer terminated employment	Life crisis Work stress Conflict at home or work Another illness Recover from an illness
Reason for seeking help	Concern at prognosis Fear of long term disability Expectations of others	Fear of damage To obtain diagnosis To obtain treatment "get fixed"	Concern at prognosis Fear of long term disability Expectations of others Unable to manage job tasks	Sudden loss of job Need to get medical certification for compensation	"I might put others in danger" "Other workers are covering me, I'm not pulling my weight" "I just give up" "I'm not meeting the standard"
Subsequent work behaviour	Stopped work immediately Carried on "at great cost"	Stopped work immediately	At least one attempt, usually multiple attempts to return to work Stop once health care provider sanctions	No job, did not attempt to RTW Anger at employer Limited job seeking	Resist interventions to return them to the workplace Workplace modifications seen as negative "I'm different"
Reasons for withdrawing from work	Health care provider instructions Employer instructions Fear of permanent damage	Degree of functional limitation, "damage"	Health care provider instructions "the Doctor told me to stop"	Employer	Fatigue Depression "I give up" Family pressure

Table 7. Internal perceptions of withdrawal process from work

Categories	Group 1	Group 2	Group 3	Group 4	Group 6
Health care provider	Alarming language Confusing diagnoses and prognoses Confusing management	Alarming language Confusing diagnoses and prognoses Confusing management	Strongly advises withdrawing from work Conflicting advice	No strong pattern but similar to Group 6	Focus on biomedical diagnoses and interventions Psychosocial and other issues not often considered
Employer	Intensive intervention "I'm different" Anger and abrupt termination	Initial support Some remained supportive Others becoming more skeptical as time went on	Initial support Some remained supportive Others becoming more skeptical as time went on	"Only doing their job" Termination of employment Polarisation of attitude	Viewed the worker as "not motivated" Tried on-site interventions Valued "good worker" Gradually less supportive
Co-workers	Avoided letting them know Coworkers first identified they had a problem	Initial support Rapid fall-off in relationships unless strong out of work	Perceived as supportive or punishing, yet similar behaviours Suggest stop work, change work tasks	No specific pattern "management vs the workers" provided more support	Initially supportive but declining levels over time Ostracised the "whingers" Some reinforce decision to withdraw from work
Family response	Mixed "relieved" to stop work sceptical	Strongly supportive initially Either less supportive as time goes on, or encouraging treatment seeking	Initial responses supportive of withdrawal from work Either less supportive as time goes on, or encouraging treatment seeking	Mixed response Relief - "not struggling" Anger - "you're under our feet", "you're not providing"	Supportive if encouraging withdrawal from work Punishing if making dual demands for work and home activity
Case manager	Not involved while getting diagnosis Involved during withdrawal from work Contribute to conflicting demands	Involved from the beginning	Not initially involved Called in after health care provider prescribes withdrawal from work Supportive - if offering treatment Unsupportive - if supporting RTW	"Fighting a losing battle" against employer "Siding with the employer" "Pushing me back to work so I can be off the case load"	Perceived similarly to Group 3 Working on the employer's behalf Sometimes against the health professionals

Table 8. External influences on withdrawal from work

Individuals expressed concern about permanent damage, uncontrollability, no cure, progressive problem, "working *through* the pain", concerns about maintaining usual productivity and not taking "short cuts" or being seen by others to "take short cuts". As a result, many immediately stopped working

once the diagnosis was made (particularly with OOS). Others described “carrying on but at great cost to myself”, and expressed serious reservations about the damage they were doing, eventually blaming their current condition on the effect of remaining at work: “It would never have got so bad if I hadn’t tried to keep going”. Despite the divergent responses of either immediate withdrawal from work, or stoically remaining at work, all of these individuals stressed the importance of representing themselves as a “really good worker, a really hard worker”, “always paid attention to detail and did a thorough job”.

(2) *Individuals with sudden and dramatic* - “It came out of the blue” - presentations were those who described experiencing a sudden, clearly-defined incident in which they developed immediate functional problems and subsequently withdrew from work shortly after. These individuals describe their problems coming “from out of the blue”, “I was really fit, things were going really well and then this happened”, “I was working really hard and this happened”. Many of those describing this presentation had low back pain, or thoracic pain, or pain arising from a fall, jarring, dropping something or heavy blow. They may have had a fracture, tendon damage, or heavy bruising. Individuals describing this pattern of work disability onset may have experienced some “niggles” in the months before, or perhaps had a past pain problem that had resolved, but all reported working well just prior to this incident. They described dramatic symptoms with major incapacity usually with high levels of distress, expressing disbelief that “it could be happening me”, and great reluctance to engage in reactivation, particularly work tasks. Individuals included in this type of presentation expressed considerable concern about the seriousness of their problem, potential for permanent damage, and great frustration at their functional limitations. Some of these individuals expected to immediately return to full duties as soon as they were “fixed”, while others thought returning to work was impossible “unless I get fixed”.

Most of the individuals describing this type of presentation expressed concern about the degree of damage they “must have” done, and anger at the level of functional limitations they experienced. As a result they reassessed themselves as “weak”, no longer “good workers”, and were fearful of attempting to work because their performance would not be “good enough”. Most did not believe they were able to influence their work ability themselves, and after multiple biomedical interventions, felt pessimistic about a biomedical “cure”, sometimes expressing anger at the shortcomings of medical science.

(3) Returned to work at first - “The Doctor told me to stop”

A number of individuals described an acute onset similar to the group above, but remained at work (perhaps on slightly modified duties) until advised by someone to stop work. Others described an insidious onset of symptoms. Their diagnoses included low back pain, carpal tunnel entrapment, neck pain or OOS. They may have initially managed the problem themselves with modified activity, and analgesia, and returned to work, albeit on modified duties, until advised by a health care provider to stop.

Individuals were clear about the onset of their problem, and believed that it was remaining painful “because the injury wasn’t healing”. Some indicated that they were avoiding certain tasks to minimise possible damage, and pain. Few thought at the outset that the problem would become chronic, and therefore did not express negative expectations about the prognosis at that time, but became increasingly worried about their health as time went on. They stopped work on the advice of a health care provider who expressed concern that the problem had not resolved, and suggested that work activities were contributing to the maintenance of the problem.

Many believed the problem was that they had remained at work “too long”, not giving the injury “time to heal”, “keeping on damaging it”, “irritating and

inflaming the tissues", "reinjuring and aggravating it because of what I was doing". These individuals expressed alarm at the possible damage that could be caused by returning to work, and were therefore fear-avoidant particularly of work activities. Pain was thought to be the best guide to stop activity, particularly work activity. However, some were concerned that having stopped work, they continued to experience pain, which did not fit with their understanding of the problem. A majority thought that they were unable to influence their pain, that they had to wait to get better, or get enough treatment to get better. Some were relieved to stop work "because I was trying so hard to keep it together", while others felt "angry at my career going", "but I couldn't pull my weight anyway, so it was better for everyone".

(4) Maintained work with difficulty - "I just kept going until I had to stop"

A similar group to that described above, these individuals took no significant time from work, may have experienced a gradual or acute onset of symptoms, sought treatment usually outside of work, and while they may have raised their problems with the employer, continued to maintain work activity. Although they may have been receiving treatment for their pain problem, it was often another life difficulty that precipitated their seeking help for the pain and work problem. Precipitants may have included a change in duties, interpersonal conflict at work, change of supervisor, development of another illness, or sometimes resolution of another illness. Sometimes an awareness raising campaign provided the impetus to seek help. These individuals described feeling fatigued, helpless, under pressure to perform at work and somewhat socially isolated. A common description was "I just kept on going until I had to give up", intimating that stopping work was "not my decision, I would have kept going if I had been able to". These individuals describe "not wanting to make a fuss", "working really hard to keep going".

Individuals presented mainly with fatigue and despondency, and a pervading

sense that "the problem will only get worse", "others have to do my work and they resent it", "I shouldn't be a problem to others". These individuals developed beliefs that hurt must equal harm, but rather than avoiding activity, maintained activity "because it just has to be done". Some described a clear "boom and bust" pattern of increased activity between periods of rest, with many describing this in relation to working hard while at work, but resting when home. Others continued to carry out home-related tasks and stoically maintained activity despite increasing levels of fatigue.

These individuals were at pains to indicate that they would have continued at work but they felt they put others at risk, their work was unsafe for others, or others were having to do more than their fair share. They were inclined to seek help for their problem if their performance standards were queried. They expressed concern over the security of their job, and as a result attempted to hide their problems from others. They perceived modifications to work duties as negative, and resisted having other interventions put in place, in part because they felt this made them "different" or "stand out", while all they wanted to do was "get on with my job".

(5) Unsuccessful return to work - "They fired me"

These individuals had attempted to return to work, using a variety of strategies including maintaining passive treatments, modifying duties, and attempting to return on multiple occasions. They were characterised by being laid off by their employer because they were not productive. Some described having returned to work and later needing to obtain medical certification to enable them to receive compensation when asked to stop work.

Individuals described a range of beliefs about their pain problem, some being concerned about ongoing damage, and some indicating this was not a concern

but that they were left with residual disability that compromised their work performance. Many expressed a strong belief that they were entitled to compensation because their disability had restricted their earning capacity. Some were equally angry with their employer for "not standing by me", "only being interested in his own bottom line", "I gave him my all, he's just a prize asshole, kicked me while I was down - and you can quote me on that!"

Some had returned to work at the request of another - e.g. case manager, employer, family - and blamed their current situation on this pressure "I would have healed and been back at work if they'd just left me alone". Others had wanted to return to work but then attributed their inability to produce at the required level to their "not healing", or "not getting enough treatment". Others felt resentful that they had tried hard, been unsuccessful and were continuing to experience pressure to return to work "when other people I know just stop at the drop of a hat".

External influences

(1) Perceptions of health care providers behaviour

Group 1 - Gradual onset

The most common theme from participants was confusion after hearing many different explanations for the problem, with often conflicting advice. Those who were diagnosed with OOS in the early part of the 1980's identified massage and other passive forms of physiotherapy treatment as important to remove "lactic acid build-up" - these individuals expressed the belief that they would eventually be cured of the problem with sufficient treatments, although some acknowledged that they had not experienced any benefits. Others had been told to use specific movements, and avoid using others to "reduce static contraction" or "reduce over-use". Another group had been provided with an extensive range of adaptive equipment "ergonomically designed" to reduce

OOS. Many had been told they would be “cured” after an intervention, and if/when this did not occur, felt their treatment provider intimated that “something they were doing”, “an attitude”, was to blame.

Conflicting views from biomedical treatment providers were evident: some advocated remaining at work “work through the pain, some pain is normal”, while others supported avoiding tasks, letting “pain be your guide”. Workers expressed confusion and anger at having to decide which advice to follow.

Group 2 - Sudden, dramatic

Because these individuals presented with an acute, dramatic onset of pain, most received a diagnosis very soon after their pain started. This biomedical representation of their problem coloured their understanding of their problem, with many giving graphic portrayals of “discs bulging”, “discs desiccating and squashing down”, “nerves pinched”. Many had been investigated for surgery - those who had been declined reported confusion and fear about the ongoing damage they were doing to their bodies that “surgery won’t fix”. Repeated biomedical interventions were offered, particularly physiotherapy modalities, and this group described receiving conflicting messages about activity, pain and damage from medical practitioners and other health care providers.

Group 3 - Returned to work at first

As a group, health care providers were the most influential in the genesis of work disability for this group of workers. Health care providers diagnosed the problem as a pathological/disease problem, made strong recommendations to withdraw from work, and reinforced an acute model of pain. Participants indicated they felt confused by hearing contradictory advice about activity and chronic pain. The model most often used was biomedical, but some described having occupational therapy and physiotherapy visits to work “to do a work assessment”, advice, equipment and task changes recommended were

biomechanically based. The problem was viewed as one in which the individual needed to learn how to adapt or change without necessarily looking at the wider organisational issues. The most clear message heard by this group of individuals was “let pain be your guide, stop if it hurts”.

Group 4 - Maintained work with difficulty

Health care providers focussed on biomedical diagnoses and interventions. The possibility of wider psychosocial issues including the presence of anxiety or depression was not a primary focus, and interventions were aimed at the individual worker rather than wider organisational issues. Contradictory advice from different health professional groups was described, with individuals reporting difficulty deciding which approach was most useful. This was particularly evident when health professionals differed in their advocacy of remaining in the workplace, especially when this conflicted with case management advice.

Many of these individuals had taken an active decision that they had “reached their limit”, and described feeling punished by health care providers who wanted them to attempt to return to what was perceived as an aversive workplace. Some individuals reported feeling negatively labelled as “noncompliant”, “not motivated” because they felt incapable of functioning in the workplace.

Group 5 - Unsuccessful return to work

There was no clear pattern evident with respect to health care providers, who seemed to be equally split between supporting any return to work, or stating that return to work should not be attempted. Some individuals who had continued to receive treatment while returning to work described similar responses to those with gradual onset, or stoic maintainers.

(2) Perceptions of Employer response

Group 1 - Gradual onset

Some individuals described raising the issue with their employer, however issues were often not resolved to the worker's satisfaction. These individuals often expressed anger at their employer, which led to acrimonious termination of their employment. Others described having intensive intervention at the workplace. These actions subsequently identified the worker as "different", "sick" with altered social relationships in the workplace. Other employers were described as expressing feelings of concern that "the problem didn't go away" with subsequent intimation about the worker's "attitude" to work.

Group 2 - Sudden, dramatic

Although some described antagonistic relationships with their employer, many noted that the employer "wants me back as long as I'm 100%". Some were offered selected duties by the employer, but refused these because they were "demeaning" or for fear of damage. As for coworkers, because individuals did not attempt to return to work, relationships with employers became less influential over time. Some individuals felt "pressured" to return "100% fit or not at all" because of their previous level of productivity. Some were offered work by employers as a result of experience rating, some perceived this as an attempt "to get me back then fire me".

Group 3 - Returned to work at first

No overall pattern of response from employers was detected, apart from comments that initially supportive responses declined over time, and initial acceptance of the problem as "genuine" giving way to suspicion about the individual's motivation for work. Those employers who did not provide flexibility in work tasks or workplace modifications, or who identified clear time-frames for return to work were seen as punitive and unsympathetic, although many individuals indicated they could understand the employer's

perspective, "he's got to keep making a dollar".

Group 4 - Maintained work with difficulty

Some employers were described by individuals as very supportive, suggesting that "it's time you looked after yourself", and offering a range of selected duties. Individuals on the whole perceived employers as being sceptical about the validity of their problem - if the employer was willing for work modifications and the outcome did not produce the results expected, individuals perceived they were viewed negatively, while if the employer was unwilling for work modifications, individuals perceived employers unfairly insisting they meet work demands.

Group 5 - Unsuccessful return to work

Employers were "the villains" of the piece for this group of workers, who attributed their withdrawal from work directly to the response of the employer. Employers were seen as either too demanding, inflexible, or lacking in tolerance. A small proportion described their employers as "just doing their job", but some individuals expressed anger, resentment and hurt at punitive responses for past loyal support.

(3) Perceptions of Family Response

Group 1 - Gradual onset

For most of the participants, work provided necessary income to support the family. There were mixed feelings expressed about family influences on remaining at work. Many participants stated that their families were "relieved" or "grateful" that they stopped work because "they didn't like to see what working was doing to me". Similarly, others described family members as actively encouraging them to stop work "because I wasn't coping". In contrast, some described their families as sceptical of their problem "because they think I just want to get out of work, and they can't see it".

Group 2 - Sudden and dramatic

The families of these individuals were described as "initially supportive". The dramatic presentation and rapid reduction in activity was initially supported by the family "I was so different from what I was like before, that they know it's real", "my wife tells me to take it easy and should I be doing these things?". Some individuals reported their families maintained this behaviour over time, while others described a decline in support until the family either ignored the problem, or actively punished them. Those reporting punitive family relations also described their families as eager for them to return to work - "they're just sick of me being around home".

Group 3 - Returned to work at first

As for individuals in the "sudden dramatic" group, initial responses from family were described as supportive of withdrawal from work. As time progressed, however, some remained solicitous and urged treatment seeking, while others were described as increasingly punishing and critical especially of the work disability.

Group 4 - Maintained work with difficulty

The families of the individuals in this group were described as either supportive (solicitous and intimating it was time to stop work and take a rest) or punishing (maintaining demands for work both in the workplace and in the home). Individuals described their family responsibilities as fixed requirements that had to be carried out regardless of their health, and described their work duties as an extension of this because of the financial contribution working had on the family. Often individuals described maintaining tasks "because it is my duty" despite offers from family members to help, "they don't do it the way I want it done".

Group 5 - Unsuccessful return to work

A mixed response from family to stopping work was described by these individuals. Some described their families as being relieved that they were no longer “struggling at work”, while others described their families as angry and upset that they couldn’t maintain return to work and were now “under their feet”.

(4) Perception of Coworkers

Group 1 - Gradual onset

Many participants avoided revealing their pain problems to others at work “they would all be sorry for me”, “they’d think I was just trying to get sympathy”, “they would think I was losing my marbles”, “you have to pull your weight”. Some indicated that coworkers first identified that they had a problem; “I didn’t know I had OOS until someone else went to their doctor and they told her she had it”; these individuals described social sanctions that applied both positively and negatively to those with pain problems. Positive sanctions displayed included being supported to take on a “disability” role, share duties, discuss symptoms, adopting a “them-vs-us” employer/employee advocacy. Negative sanctions included actively punishing those disclosing pain problems by shunning their company, giving them the “hard” duties, making snide remarks, increasing expectations.

Group 2 - Sudden, dramatic

Relationships with coworkers reflected the premorbid interpersonal relationships. Most of these individuals did not attempt to return to work, so their relationships with coworkers were not maintained. A common comment was “they saw it happened so they know it’s real, I don’t understand why anyone would think being on ACC is a perk...”.

Group 3 - Returned to work at first

Coworkers were described in two groups: those who were seen as supportive, and those who were seen as punishing. Interestingly, similar behaviours were identified for both groups. Both groups were identified as suggesting that the individual should stop work - this was identified as punishing by those who felt ostracised at work, while those who felt included in the social network experienced this as supportive. Both groups suggested at various times changes to work tasks - this was seen as punitive and demeaning by those who felt ostracised, while it was viewed as supportive by those who felt included.

Individuals identified that coworkers labelled them as "genuine" or "faking" and that this, in their opinion, was what led to them experiencing inclusion or exclusion in the social network. Some acknowledged that they had never had strong interpersonal relationships with coworkers, while others indicated that their work disability precipitated their exclusion. Those describing workplaces with strong alliances against "management" indicated greater social support, providing the individual was accepted within this group.

Group 4 - Maintained work with difficulty

Coworkers were identified as being initially supportive, but this support declined over time, and a growing suspicion about the individual's motivation. Some individuals described feeling "singled out" because of having modified duties, special equipment or reduced hours, and perceived themselves as being thought of as "complaining". There was a strong intention by these individuals to avoid disclosing their problems to those around them, particularly to their supervisors. However, it was clear that they did express their problems nonverbally, and experienced both covert and overt responses from coworkers.

Group 5 - Unsuccessful return to work

No specific patterns developed from the responses of this group, although it was noted that where a strong “them vs us” culture existed, support from coworkers was more likely. Where the individual was excluded from the social structure at work the response to being laid off was seen less negatively, although it was still viewed as personally disparaging.

(5) Perceptions of Case managers

Group 1 - Gradual onset

Case managers were not often involved while the individual was obtaining the diagnosis, but were influential in the period between diagnosis and the individual withdrawing from work. Participants described being caught between conflicting demands from the case manager and the treatment provider, especially where a treatment provider advocated avoidance strategies or using “pain as the guide”, while the case manager was promoting remaining at work. Alliances between the worker and treatment provider against the case manager were described. Employers were identified as aligning with the case manager. Case managers that were described positively were those who provided interventions, supported retraining or redeployment, or made plans that the worker agreed with.

Group 2 - Sudden, dramatic

Case managers were involved early in the work disability of these individuals. Some described their case manager as helpful; “they got me home help and paid for my MRI”, while others were seen as punitive especially when developing return to work options; “before I’ve got better”, “they’re really on the side of the employer, they just want you off their books. I don’t think she really believes I’ve got a problem but you can see it on my MRI”.

Group 3 - Returned to work at first

Case managers were not initially involved with these individuals, primarily because they returned to work soon after their initial injury. Case managers were often called in only after either the health care provider made specific recommendations for rehabilitation, the individual required increasing periods of time away from work, or the employer identified that the work absences were no longer tenable and employment was at risk. Once involved, case managers were seen as supportive when providing interventions (e.g. workplace modifications), or funding treatment options (e.g. surgery, physiotherapy programmes); but portrayed as punitive when supporting repeated attempts to return to work, seen as siding with the employer, "trying to get me off the books"; and at times working against health care providers who recommended withdrawing from work "my doctor says I shouldn't be at work, he's only signing the forms to keep ACC happy".

Group 4 - Maintained work with difficulty

Case managers became involved some time after initial development of work disability. They were perceived in a similar manner to those from the "Doctor made me stop" group, that is, supportive when providing interventions and treatments, but punitive when suggesting individuals attempt to return to work. They were seen as working on the employer's behalf, and at times against the health professionals.

Group 5 - Unsuccessful return to work

Case managers had often been involved for some time before the individual was made redundant. They were perceived as "fighting a losing battle" when an employer was perceived negatively, although at times were also seen as "siding with the employer" in supporting the employer's decision to fire the individual. After the position was gone, case managers were often perceived as "pushing me back to any work" "so I can be off her case load."

Part B: Factors maintaining work disability

Factors that initiate work disability are not necessarily the same as those that maintain work disability over time. The following table identifies factors that were identified by the author as maintaining disability. These were identified from content analysis of material obtained from the semi-structured interview, using the process described above. Percentages add up to greater than 100% because participants articulated more than one belief. Each distinct belief was counted, while similar beliefs expressed by an individual were counted once.

Beliefs about the pain problem	
85%	Hurt equals harm
70%	I have no control
60%	It's unpredictable
40%	It's overwhelming
30%	I don't understand it - I've heard too many stories now
15%	Nerves are too active because of damage

Table 10. Beliefs about the pain problem

The two predominant concerns were that hurt equals harm, therefore pain must be the guide to activity, and concern at the difficulty of predicting reliable performance, or being at the mercy of pain which could be controlled only by withdrawing from work activity or taking quantities of medication.

Beliefs about pain management at work	
70%	You have to meet your employer's demands, and they won't understand you slacking off
60%	Pacing is impossible
50%	Pain management means stopping what you're doing and you can't do that at work
45%	I know what to do, but I don't do it because I want to do a good job

30%	I'm worried what other people will think if I stretch, or take breaks or go for walks
25%	You can't stop halfway through a job to take a break
20%	You can't do relaxation at work
15%	I just have to learn to say no - that's hard when you're employed
5%	I tried using distraction, but I ended up so sore at the end of the day I'll never do it again
5%	I call it "fake it 'til you make it" when I take little breaks - they never know I'm really doing pain management!

Table 11. Beliefs about pain management at work.

Most concerns appeared to be about the need to stop work activity to carry out pain management strategies. Individuals had difficulty identifying active coping strategies apart from pacing, which was viewed as "impossible" at work. Many expressed concern about being "different" from others at work if they used pain management strategies such as stretching, breathing, relaxation, pacing.

Beliefs about worker performance (expectations)	
80%	I shouldn't work when I hurt
60%	Unless I work 100% I'll be out of a job
50%	All or nothing, I must meet others expectations (work like I used to)
50%	I don't want to be singled out/look different
20%	I know the job can only be done one way
15%	The boss/coworkers won't let me change the way I work

Table 12. Beliefs about worker performance (expectations).

Beliefs about the way work "should" be performed influenced the adoption of pain management strategies in the workplace. These beliefs, interacting with beliefs about pain and damage, produced beliefs or expectations about whether return to work at this time would be successful, described below:

Beliefs about ability to sustain work performance to expected standard	
60%	If I have to change the way I work, I can't (it's unacceptable to me)
55%	If I have to change the way I work, I can't (it's unacceptable to others)
50%	If pain = damage, then I must stop
40%	I don't want to push myself at work and end up a wreck at home, so I can't
40%	Other people are insensitive if they think I should return to work while I'm still sore

Table 13. Beliefs about ability to sustain work performance to expected standard.

Many perceived themselves as performing inadequately if they used pacing, relaxation, or other strategies that took them away from their work tasks. Others were concerned at the social impact of performing differently, while others were concerned about how they could be assertive about their needs for some work modification. Some beliefs arose from the perception that hurt equalled harm, and that activity should be stopped if it increased pain.

Perception of support and punishment from others	
70%	People that advise me to "take responsibility" really mean "I should pull myself together"
65%	People that don't understand my problem are really saying "I'm faking it"
60%	People that help me seek treatment are supportive
60%	People that give me advice to withdraw from work are supportive
45%	People that push me back to work in spite of my pain are punishing
20%	People that will find me a job that fits my specifications are supportive

Table 14. Perception of support and punishment from others.

Individuals perceived those around them to be supporting if they acknowledged their limitations, did not challenge those limitations, and provided palliative interventions such as finding work within functional

limitations. Although others were described as “doing their best”, efforts to increase activity were often viewed as punitive, unsympathetic to the individuals’ “real” plight. Acknowledgement of the individual’s concerns about pain, sustainability, reliability, difficulties job seeking and so on reduced the level of antagonism expressed towards them.

Beliefs about work options	
70%	My age/skills/experience are against me especially when you think I've got a pain problem
60%	I'm a [tradesman/professional], I've done that all my life, I can't think of anything I can do with my problem
60%	There isn't much work out there, how can you compete against able-bodied people when you have a pain problem?
45%	I'm a [tradesman/professional], I've done that all my life, I can't think of anything I <i>want</i> to do apart from that
40%	I'll need retraining
30%	Someone will have to find me a job
30%	I don't think I'm reliable enough

Table 15. Beliefs about work options.

Beliefs about the availability of jobs, and the skills the individual had within the job market played an important role in their developing suitable return to work goals. Individuals expressed specific concerns about being pitted against able-bodied workers with the current level of unemployment. Other problems described by unemployed people were considered additional burdens by those with pain problems.

Some had limited experience with selecting career options, and some had limited experience seeking jobs because of stable work histories. These individuals expressed considerable concern at the unfamiliarity of the process. Some appeared to rely almost completely on the efforts of case managers or

job seeking agencies to find them work, while others were not prepared to look for work until they had been told what job to get, and/or had been retrained.

Beliefs about job seeking	
50%	I'm too old/young/underqualified/overqualified/disabled/anxious to look for work
40%	I've never had to look for work before, I don't know how
30%	How can you compete against able-bodied young ones with all those qualifications?
10%	I don't think I can work so I can't go looking for a job, it's not fair
5%	Someone else should be finding me a job
5%	I've never been good at getting work, now I'm sure I can't
5%	It's far too early for me to look for work, I don't know what I can and I can't do

Table 16. Beliefs about job seeking.

Self efficacy for job seeking appeared to be shaped by previous experience in job seeking, confidence in ability to manage pain, and sense of entitlement.

Anxiety (social)	
35%	I don't think I can tell an employer that I can't do something
30%	I hate job seeking, it's too scary
15%	I hate telling people what I'm good or bad at, it's too scary
10%	Someone else has to look for me because I can't do that door knocking/letter writing/interviewing
10%	I can't do interviews

Table 17. Social anxiety

The process of considering job seeking uncovered a high level of latent social anxiety, exacerbated by a perceived lack of control over the return to work

goal. Individuals expressed this anxiety by withdrawing from activity, missing appointments, avoiding contact with the case manager or person assisting with job seeking, becoming increasingly distressed as an interview drew closer, becoming angry and resentful at being “subjected” to the process.

Influence of others	
45%	My doctor/health care professional has told me work is bad for me
40%	My partner is afraid I'll get unwell again
40%	My partner/ACC/employer/doctor thinks I should get back to work but s/he doesn't understand
15%	My case manager won't pay for me to retrain/doesn't agree with the direction I want to go
10%	Coworkers want someone who can pull their weight

Table 18. Perceived influence of others

The responses of others were used as justification for adopting a particular stance. Two groups were identified: those “for”, and those “against”, depending on whether the individual was ready to look for work, or believed it was not appropriate. Of those who were described as “against” because they supported returning to work, many were described as “not really understanding”, or “they don’t believe I’m being real”, while others were described as “against” because they encouraged returning to work in a direction with which the individual did not agree. Those individuals with a high level of social anxiety described great concern about how coworkers and employers would perceive them, and subsequently felt less confident about using pain management strategies, and/or seeking work in which the strategies would need to be employed.

Learning experiences since work disability	
40%	Every time I've tried I've failed
40%	Hurt equals harm
30%	You can't do pain management at work
15%	Coworkers don't understand/won't accept me and I hate being different
10%	I can't do my old job well enough

Table 19. Learning experienced since onset of work disability

The effect of learning experiences on the self efficacy and expectations of individuals cannot be over-estimated. Although many of the group did not attempt to return to work, those who did experienced an average of two unsuccessful attempts which appeared to reinforce the uselessness of attempting to manage pain at work, any social anxieties particularly relating to assertiveness with coworkers and supervisors, and disparity between intended performance and actual performance. Individuals described increasing alienation from those they worked with as a result of repeated unsuccessful attempts to return to work, as well as contending with the increasingly polarised views of treatment providers, case managers, family and employer.

Barriers to returning to work identified by participants	
45%	managing my pain
38%	functional limitations, restrictions on activities
38%	career direction unclear
30%	lacking confidence
26%	uncertain about sustaining performance
23%	lack of training, limited range of skills
13%	having the "compensation" label
13%	worried about their age
11%	fears about competing in an open job market
11%	attitudes of employers to those with pain/diagnosis
10%	lack job seeking skills

Table 18. Barriers to returning to work identified by participants

In sales training, sales staff are trained to establish the customer's "objections" to purchasing an item or service. Once the "real" objections are identified, the salesperson is able to demonstrate how the product or service will meet their needs by overcoming those objections. At no stage is the customer "wrong". In a similar way, individuals who are being "sold" (or want to) return to work hold "objections" to this - the beliefs detailed above are, to the individual, valid representations of their understanding of the process. "Salespeople" in this metaphor are any individual, organisation or policy who exerts force to facilitate the individual's movement back into work. Sometimes this is done without acknowledging the reality of the individual's beliefs.

Chapter Five

A Descriptive Model of Work Disability

Chapter Five

A descriptive model of work disability

Foundations and assumptions revisited

After examining the data patterns described in the preceding section, a model for conceptualising work disability as an adaptational problem was generated. As stated at the outset, social cognitive theory and abductive methodology have been used to shape this enquiry into work disability in this group of individuals. Therefore, this section will outline social cognitive theory and Lent, Brown, and Hackett's (1994) application of the theory to career choice and performance. The proposed effects of work disability on career choice and performance are then superimposed on their theory, based on the data described above. The influence of both internal and external "push" to return to work despite holding a low sense of self efficacy for obtaining and maintaining work activities is also described.

Social cognitive theory

Social cognitive theory is a general theory of human behaviour that assumes "people are capable of self-reflection and self-regulation and that they are active shapers of their environments rather than simply passive reactors to them" (Maddux, 1995). Rather than following explicit, concrete rules of behaviour, the theory proposes that people generate "cognitive representations of the rules of actions [which] guide the process of constructing actions" (Bandura, 1989). In other words, broad rules or heuristics are developed which can be applied to a variety of situations.

Maddux (1995) summarises the seven major assumptions of the theory:

- (1) People make symbolic representations based on experience. This enables them to develop flexible internal models, create original courses of action, test and predict the outcomes of a course of action and then communicate these to others.
- (2) Human activity is primarily purposeful and guided by the ability to anticipate or predict possible outcomes of various options. This anticipatory activity is clearly dependent on the ability to generate symbolic representations.
- (3) People analyse and reflect upon their actions and this influences their ability to apply self-control to future thought and behaviour.
- (4) People can self-regulate their behaviour by actively selecting the environment in which they perform activities. Subsequent outcomes then influence behaviour which further affects the choice of environment. People develop internal "standards" of behaviour against which they measure their own performance, and continue to develop their own motivators for behaviour.
- (5) People learn by observing other people (vicarious learning) - this reduces the time needed to develop complex skills.
- (6) Neuropsychological and physiological systems further facilitate the development of behavioural control.
- (7) A primary assumption of the theory is "triadic reciprocal causation" - this is the assumption that environment, cognitive/biological/emotional factors and behaviour are mutually interactive. (Maddux, 1995)

The model is useful to describe adaptational processes used by individuals during goal-directed behaviour because of its consideration of context, inherent individual differences, learning effects and personal agency.

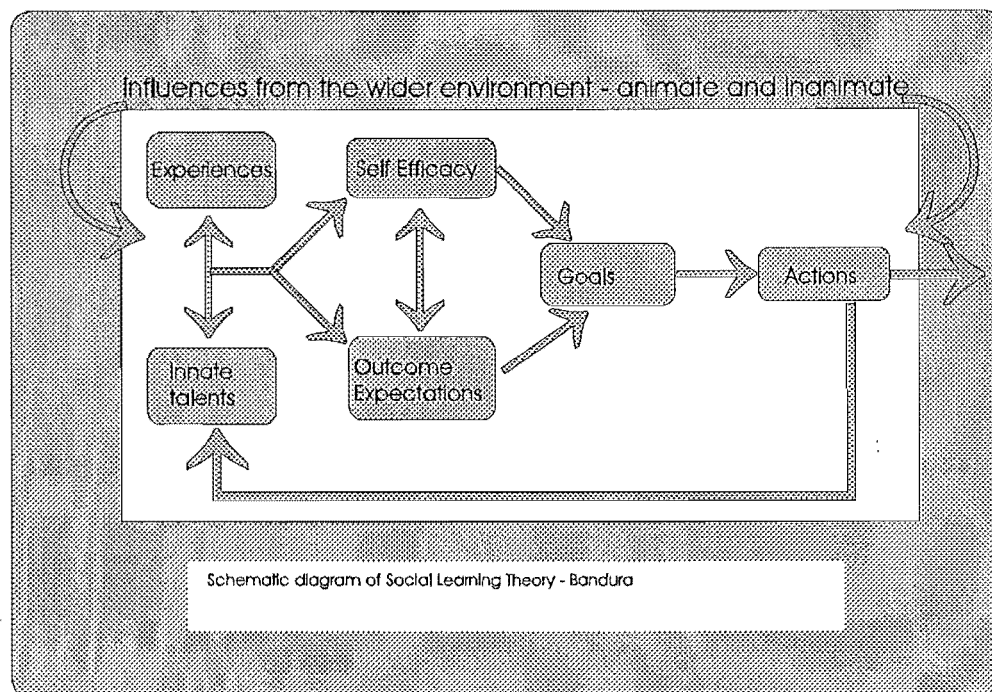


Figure 5. Schematic diagram of Bandura's social learning theory

Self-Efficacy

A key construct of social cognitive theory is the mediating role of self efficacy on both the process of establishing goals, and on specific goal areas. The concept has been generalised to a wide range of areas such as work choice (Lent, Brown & Hackett, 1994), workplace behaviour (Bandura, 1989), health behaviour (Schwarzer, 1992), sports achievement (Allardyce, 1992), and subject choice (Hackett, 1985).

Although there is some debate over whether there is an operational distinction between self efficacy and the co-construct of outcome expectations, self efficacy may be conceptualised as an individual's beliefs about their capability to successfully master task demands. Outcome expectations refer to "the belief that a behaviour will produce an outcome or result", while self efficacy refers to "a belief that one can perform the behaviour" (Maddux, 1995).

Maddux cites Bandura when he states that “general measures of self-concept and self-esteem have not provided much understanding of psychosocial functioning in specific behavioural or situational domains” (Bandura, 1986 in Maddux, 1995, p.15). That is, self-efficacy measures need to be developed specifically for the domain being measured. It may be clinically more useful to use a specific measure of “self efficacy to return to work” such as the Self Efficacy sub-scale of the Goal Systems Assessment Battery (Karoly, 1997) as opposed to a general pain self efficacy scale such as the Pain Self Efficacy Scale, (Nicholas, 1982). There is some concern at the number of instruments generated because of this specificity, and whether all the instruments continue to measure the same construct. Self efficacy measures, however, provide greater predictive value when defined and measured in specific domains than when a global rating of self-concept or self-esteem is used (Maddux, 1995. p.8).

Job seeking

It has been readily acknowledged for many years that individuals actively choose their career options, but cognitive psychological research has not been a significant contributor to the literature until recently (Hackett, 1995b]. Research has been conducted on the role of efficacy in terms of the types of work choices individuals consider (for example the studies of self efficacy for mathematics as a predictor of scientific/mathematic careers. e.g. Hackett, 1985), and more recently to look at the strategies individuals use to explore job options.

Lent, Brown and Hackett (1994) have presented a social cognitive theory of career interest, choice and performance which may be used to explain the processes through which individuals develop occupational choices during their working lives.

Social Cognitive Theory of Career Development

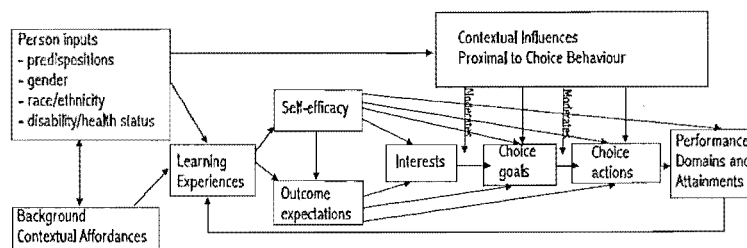


Figure 6. Social cognitive theory of career development (Lent, Brown & Hackett, 1994)

Individuals bring to any occupational choice a range of existing abilities and experiences, which are carried out within an environment that provides a variety of affordances. Aptitudes, gender, ethnicity, age and health status (person inputs) as well as geographical location, types of industry, economic status and even position in the family or governmental policies (environmental affordances) influence the range of occupations an individual may consider.

These inputs influence the range of learning experiences to which an individual may be exposed and then engage. It is from learning experiences (direct experience, vicarious learning, inference from previous experience and others) that self efficacy and outcome expectations develop.

These two components have an impact on the range of interests identified by an individual, and hence influence the range of (occupational) choice goals considered. Goals not only consist of career choices, but also prevocational options such as subject choice, educational goals, and job seeking strategies. Choice action represents the concrete steps an individual takes to make his or her goal become reality such as enrolling in specific courses, becoming an apprentice, or commencing job seeking.

Interests, goals and actions are moderated by contextual influences at the time of establishing career goals or taking actions. These may range from the current economic situation (availability of jobs), occupational choice of a significant friend or family member, the opening or closure of a local business, media-driven interest in a new technology, to family situations such as illness of a family member.

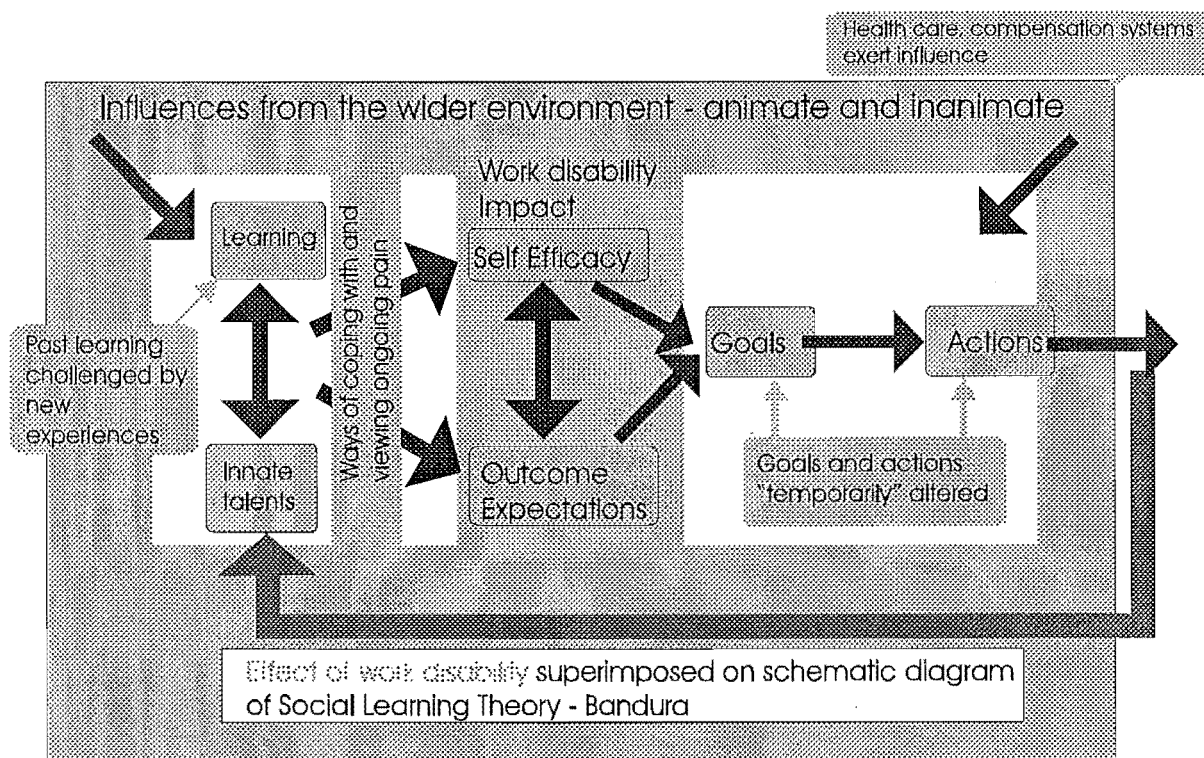
Interests, goals, and actions as moderated by contextual influences have an effect on the performance domains and attainments an individual achieves. It is from these achievements (which become part of learning experiences) that self efficacy and outcome expectations develop over time.

The interactional nature of a systems model acknowledges that any event disrupting the trajectory of a relatively stable system will have an effect across all components of that system. In the next figure (overleaf), the effects of work disability (attributed to musculoskeletal pain) based on the findings described earlier, are superimposed on Lent, Brown and Hackett's (1994) model.

Decision to Report Pain Problem

The WorkAbilities participants interviewed identified four external influences on their decision to report a pain problem, and at least four internal influences. These are illustrated on Figure 8 overleaf. The strength, direction and order of these relationships is unverified, but it can be seen from the interview data that these external agents have varying levels of influence, as described for each of the five different ways of developing work disability. It is also acknowledged that just as there are differing levels of external influence, individuals have different styles of coping with the problem, and each person builds their coping on a contextual background that includes current stressors, past learning, intentions for the future and so on. It is therefore important *clinically* to ask about individual responses to each of these factors when developing a formulation of the genesis of that person's work disability.

Figure 7. Effects of work disability on career development



Work Disability

Work disability (attributed to musculoskeletal pain), after it has been reported, immediately affects **choice actions**. That is, when an individual receives a diagnosis such as "low back strain", a common first response is to limit work activity. In both acute and chronic stages of work disability, **proximal (environmental) influences** from those around them including the medical/health care system, compensation systems, and family and coworkers either support and positively or negatively reinforce this action. For example, the doctor may certify the individual as unfit for work (positive), a claim for weekly compensation may be lodged (positive), the occupational health nurse may investigate the incident and make recommendations for return to work (neutral), co-workers may "snigger" about "compensationitis" (negative) and

the family may reorganise household tasks (positive). Compare these responses with those identified as maintaining work disability (Table 14).

Systems attempt to return to a point of homeostasis. As work disability becomes chronic, reactions from a variety of sources proximal to the worker may change. Individuals and systems attempt to return to a stable state - for example, family members may begin to expect that the worker return to "normal", weekly compensation which may have initially felt insufficient may be experienced as providing security, the occupational therapist may suggest activity rather than rest, while the initially supportive employer may give an ultimatum for returning to work. Initiatives of this kind were often construed by WorkAbilities participants as negative.

Figure 8. Combined influences on initial reporting of work disability

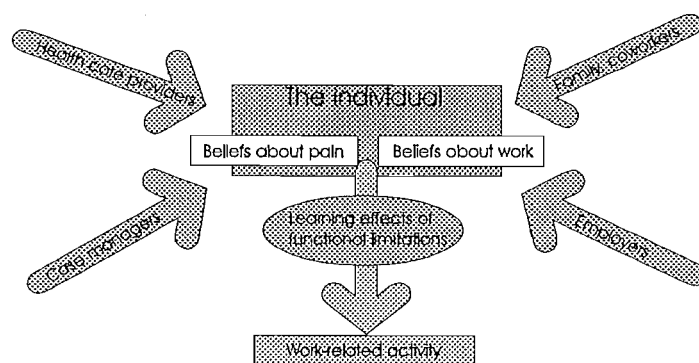
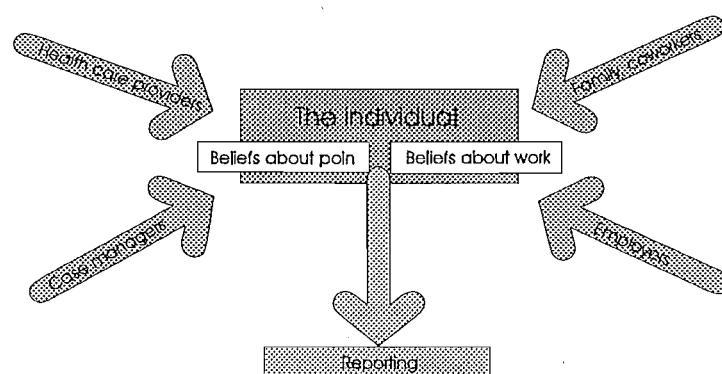


Figure 9. Effect of prolonged disability on work-related activity

Performance within many work domains is not achieved because work tasks are no longer being carried out, and this in turn provides **learning experiences** that may reduce **self-efficacy** for work tasks and subsequently reduce **outcome expectations**. Significant learning experiences described by WorkAbilities participants included the effects of repeated unsuccessful attempts to return to work, gradual withdrawal from activity which in itself reduces self efficacy for performing tasks, and the punishing effect of increased pain during or after re-engagement in activity. While individuals believed they could perform work tasks, many indicated they did not think they were reliable enough to be employed.

Interests do not appear to be affected by disability at least in the short term despite major disability (Crisp, 1990), but over time **choice goals** become restricted. Individuals who felt confident of completing physically demanding work requiring precision and accuracy may feel part-time, low demand work is possible, providing it doesn't involve using the affected body part. The longer an individual is away from his or her workplace, the more entrenched this negative trajectory can become. An interesting note is that many of the participants in this study had obtained their first career not by "choice" but by "accident", and subsequently limited their choice goals to those occupations they already knew about, or had experienced before, irrespective of the possibility of career redirection, or the constraints of their pain problem.

Over time, some individuals become aware of conflict between their expectations of themselves with respect to work disability and other competing expectations (developed from past experience and external influences) about themselves as a worker. See Tables 10, 11, 12, and 13 (Chapter four) for specific examples.

For example, some may believe that they *cannot* not work because of their

pain problem, but continue to believe they *should* maintain the function of “primary income earner”. They may also expect themselves to meet their premorbid work performance standards, despite repeatedly experiencing negative effects on their pain problem when they “push” themselves. This presents individuals with a conflict of **unobtainable work goals, low self efficacy** for performing **work-related tasks**, and considerable confusion about subsequent **work-related actions**. The individual may not always be aware of the effect of these conflicting expectations, and the internal struggle may be expressed in terms of anger directed at the pain problem, or at case managers; anxiety when considering work goals and actions; and lack of engagement in work-related activities such as work trials, leading to poorly sustained performance.

Figure 10. A model of conflict between expectations, self efficacy and work goals

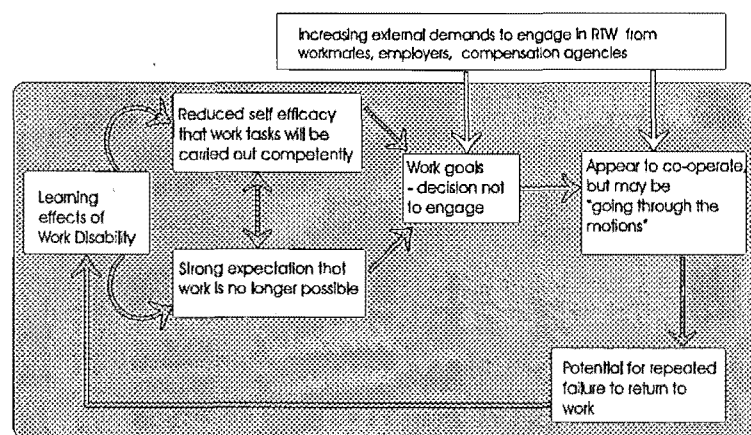
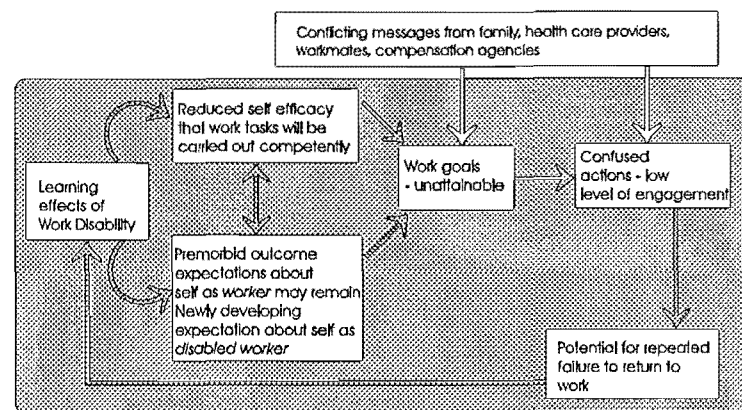


Figure 11. A model of disengagement from work.

Others may simply continue to believe that returning to work is impossible for them and firmly establish that they should *disengage* from work as a goal. They are often entangled, however, in a compensation or health care environment where returning to work is a strong expectation, and will meet increasingly demanding incentives to engage in actions to support this goal. Individuals in this position may *appear* to engage in rehabilitation actions, but may only be “going through the motions”, and have **little self-efficacy** for returning to work, **poorly defined return to work goals** and subsequently demonstrate **ineffective performance** with poor persistence. This **reinforces** their already **eroded self-efficacy and outcome expectations** for returning to work.

The work disability model presented above was used to guide development of the WorkAbilities intervention programme which is described in the next chapter. Although this document presents the process of programme development in discrete stages, the reality of the clinical setting in which it was conducted meant both the assessment process and intervention programme developed together and influenced model development. Formal review of intervention programme outcomes was, however, invaluable for identifying patterns that were not always identified in the midst of clinical practice. The following chapter describes this review.

Chapter Six

Developing an Intervention: WorkAbilities Intervention Programme and Preliminary Outcomes

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WorkAbilities Intervention Programme

While it would be ideal not to provide an intervention programme before completing model development, the clinical demands of this setting made establishment of an intervention programme an early priority. The WorkAbilities intervention programme was a pilot programme initiated before assessment data was available for in-depth analysis. The experiences participants reported as a result of WorkAbilities were incorporated in model development in a recursive pattern of:

assessment → model → programme → model → assessment → programme
and this process is ongoing.

Choice of a group format

It may seem paradoxical that while individual case formulation is integral to the assessment process for inclusion in the WorkAbilities intervention programme, the intervention is conducted as a group. The following reasons contributed to this choice of service delivery:

- (1) Group interventions are economical in a clinical setting - it is less expensive to spend one clinician's time once with a group of seven for six weeks, than to have one clinician see all seven individually for six weeks.
- (2) Groups afford opportunities for vicarious learning, role modelling and other aspects of social learning that are not as easily available in

individual sessions.

- (3) Participants in WorkAbilities were mainly graduates from the other pain management programmes offered at the Centre, and were keen to maintain contact with others from their programmes.
- (4) Group members could provide support for each other rather than maintaining contact with team members from Pain Management Centre - this promoted independence from the Centre (movement from patient to person)
- (5) The group provided an opportunity for individuals to demonstrate their competence, a venue for participants to compare themselves with others, and the opportunity for “synergy” where the input of the group is greater than the sum of the input of each individual.

Steps were taken to ensure individual needs identified through case formulation were met, and this is described later in this chapter. Team members took responsibility for ensuring participants were having their needs met throughout the programme and on completion.

Foundations for the WorkAbilities Programme

Prior to engaging in the Programme, individuals had participated in a WorkAbilities Evaluation, developed an initial case formulation, and participated in establishing the goals of this intervention. This cooperative strategy is thought to enhance the individuals’ self efficacy for engaging in the intervention (Phillips & Gully, 1997). Specific goals enable individuals to identify definite actions necessary to achieve the goal, measure their progress, and in this case, also assisted WorkAbilities Team members to identify whether interventions were meeting the participants’ needs.

WorkAbilities Programme was an active “intervention” rather than a passive

"treatment". The participants were encouraged to reconceptualise themselves as "workers" rather than "patients". The role boundaries usually established between clinicians and patients were loosened as part of this reconceptualisation - clinicians were known as "team members", who facilitated processes rather than provided information, but knew how to obtain information when necessary. Self-disclosure about personal experiences during job seeking was encouraged as appropriate. This is in line with the approach used by Caplan, Vinokur, Price and van Ryn (1989) who believe this enhances trust between participants and facilitators.

Self efficacy theory and WorkAbilities Programme

Social learning theory, and in particular self efficacy theory was, from the outset, identified as a useful framework on which this programme could be developed. The WorkAbilities Programme can be described in terms of the six major sources of self-efficacy information identified by Maddux and Lewis (1995).

Specific efficacy-developing strategies employed in the programme

(1) *Emotional and physiological arousal* - individuals with chronic pain often present with high levels of physiological arousal, fear, anger and depression. Participants in the WorkAbilities Programme were exposed to the use of relaxation strategies, specifically those they could apply to the work place or while seeking a job. Cognitive coping statements and a "crisis coping card" provided specific actions for participants to use during "flare-ups" to prevent relapse.

(2) *Verbal persuasion* - the group setting of WorkAbilities provided social reinforcement for active risk-taking. Participants shared their experiences of applying methods they had learned at the beginning of each session. Group members were invited to provide feedback and encouragement to each other for taking these active steps. Programme facilitators modelled this during the

initial sessions of the Programme.

(3) *Vicarious experiences* - the group setting provided opportunities for individuals to learn from the actions of others. Participants used role plays and video to rehearse behaviours that may be initially feared, with Team members providing modelling initially.

(4) *Imaginal experience* - guided imagery was incorporated in relaxation sessions. Participants were encouraged to use their imagination to develop a "vision" for their work goal, such as what it would feel like to be doing this work, what they would say to their family when they got their job.

(5) *Guided Mastery* - sessions actively involved participants in practical tasks. The tasks were established for each individual, graded to ensure initial attempts would be successful, and aimed to promote "self-fulfilling prophecies" of increased self-efficacy. Participants were invited to provide feedback on their own performance before the group was invited to give feedback about one area that remains a challenge and one area that was done well. This ensured constructive feedback was given to encourage the individual in the things he or she did well.

(6) *Performance experiences* - a "mission" (should they choose to accept it!) was issued at the conclusion of each WorkAbilities session. These tasks were not called "homework" after negative feedback from participants that they were "not in school any more". "Missions" were individualised tasks, either using skills learned during the session, or those skills participants already felt comfortable using for job seeking. Ways to ensure success ("what ways can we get around the challenge of this mission"), and inoculate against possible setbacks were discussed within the group.

The Programme

All participants were advised that they were required to attend a minimum of 10 of the 13 sessions of the WorkAbilities programme, or they would need to withdraw from the programme and attend a later one. A group commitment to attend the programme was established at the outset. There were no payments for attendance. Participants were advised to discuss entitlement to

travel reimbursement with their case manager. No fees were charged for attending the programme, and a nominal (cost-recovery) fee charged for the folder and photocopied materials used during the programme.

The sessions were held in a room dedicated to the WorkAbilities project at the Pain Management Centre. The room accommodates a maximum of 10 participants, with a comfortable limit of 8. Moveable chairs of varying heights were provided, and formed into a circle with a view of the whiteboard. Participants were invited to select seating that best suited their needs, and to move as necessary. The facilitator was seated amongst the group.

Each session was designed to cover certain material, while providing participants with the opportunity to guide the speed and depth with which it was presented. Sessions each included establishment of group values and behaviours, a process for 'getting present' that was intended to cover issues that could prevent full participation in the session, introduction of the topic for the day, facilitation of the session to ensure participants generate their own solutions and explore alternatives, role-playing and rehearsal as appropriate, completion of set tasks/processes to assist exposing and discussing job seeking, pain management and allied topics, "missions" to be completed at home between programme sessions, and social support, inoculation against set-backs, re-rehearsal and problem solving situations that arise.

The intervention sessions were delivered to groups of 4 - 10 participants by members of the WorkAbilities Team. Team members were clinicians experienced with facilitating groups, provided with resource material for each session, and were involved in weekly team review sessions. Each of the thirteen session outlines were standardised, with team members having several pages of documentation for each session, however as noted above, specific content depended on the needs of the group participants. Full details of the programme outlines are available from the author, and outline of the programme and a sample session outline may be found in Appendix B.

Outcome data from WorkAbilities Programme

The results from implementation of the WorkAbilities programme were examined to identify potential factors influencing work disability that may not be evident from interview or questionnaire responses. The programme was developed from the assumption that increased self efficacy for implementing pain management at work would support return to work, and self efficacy for work would be enhanced by identifying a broader range of possible work options. As described earlier, the programme incorporated social cognitive and cognitive behavioural principles and a philosophy of cooperation between facilitators and participants in order to support self management of change.

Results from the programme are suggestive only - it is simplistic to expect that a task of the complexity of job seeking will be measured adequately without the use of a research "programme", or conducting the research in a number of related stages. The use of multivariate statistical analyses, which would have been able to explore the interactions in more depth was not possible given the available sample size. Hence the current research is necessarily exploratory in nature.

Change in pain, disability and goal-related measures

There were no significant differences between pre and post-programme scores for measures of pain, and disability. Significant difference between pre and post-programme scores were obtained for Self Efficacy, Social Comparison, Planning of the Goal Systems Assessment Battery. Scores on the Self Reward subscale approached significance. It is interesting to note that scores on the Pain Self Efficacy Questionnaire did not change significantly, however the more specific measure of self efficacy for return to work did change in a positive direction (GSAB Self Efficacy $p > .004$).

The WorkAbilities programme did not specifically target pain intensity, therefore it is unsurprising that scores on the visual analogue scale did not change, and scores on the activity subscales of the Multidimensional Pain

Inventory were similarly nonsignificant.

Table 21. Participants selected for WorkAbilities - t-test for pain, disability and goal-related measures before the Programme and at 3-month follow-up (N=33)

	Mean (s.d.)	t (paired 2-tail)	df	p	
VAS - Present	59.2 (18.10)	0.87	32	0.392	n.s.
MPI - Support	45.94 (13.59)	1.99	29	0.06	n.s.
MPI - Punishing	49.52 (12.33)	0.98	30	0.34	n.s.
MPI - Solicitous	45.44 (11.57)	2.27	30	0.031	significant
PSEQ - Total	44.58 (9.56)	-1.35	32	0.19	n.s.
GSAB - Self Efficacy	10.97 (2.84)	-3.11	32	0.004	significant
GSAB - Social Comparison	4.67 (3.803)	2.87	32	0.007	significant
GSAB - Self Monitoring	9.30 (2.41)	-1.24	32	0.224	n.s.
GSAB - Planning	10.70 (2.87)	-2.48	32	0.019	significant
GSAB - Self Criticism	8.39 (2.99)	-1.79	32	0.083	n.s.
GSAB - Self Reward	7.27 (3.27)	-2.15	32	0.04	n.s.
GSAB - Positive Arousal	12.15 (2.90)	0.6	32	0.55	n.s.
GSAB - Negative Arousal	9.18 (3.24)	0.22	32	0.82	n.s.
Zung - Depression	44.58 (9.56)	2.04	32	0.82	n.s.

Achievement of key outcome variables by WorkAbilities Participants

The following tables provide data obtained on achievement of key outcomes achieved by WorkAbilities participants.

Although the WorkAbilities programme did not focus on participants obtaining a job at the end of the programme, but rather helping participants generate job seeking strategies and a positive view of themselves as potential workers, a surprising number did obtain full or part time work by the three month review.

Obtained a job	Frequency	%
Missing data	1	3.3
Successful	10	33
Unsuccessful	22	72.6

Table 19. Work outcomes at 3-month review

The focus of WorkAbilities was on broadening the range of skills available for an individual to consider using in employment. To do this, transferable skills were identified. Transferable skills are descriptions of those underlying skills that form the basis of skilled activity in more than one task. Examples may be "ability to communicate well in words to individuals" as opposed to "telephone call skills", "ability to manipulate hand tools with skill and dexterity" as opposed to "jeweller". Job titles constrain job choice for participants because they are seen as specific jobs in specific settings, and are easily eliminated because of preconceptions (Bolles, 1998).

Individuals were encouraged to identify at least three favourite or preferred skills clusters which could form the basis of a work option. Most individuals were able to identify between twelve and twenty different skills, which were clustered together in groups of three to five. Participants were then encouraged to identify a range of job options that could be built from these clusters, and could be further clarified with the description of "preferences" which help to clarify details of the work setting in which the individual will work most effectively.

Number of Skills identified	Frequency	%
Data missing	2	6.6
Named one	4	13.2
Named two	3	9.9
Named three	24	79.2

Table 23. Transferable skills identified at 3-month review

Most participants identified at least three skills, while those that named one or two were describing the job title of their chosen work alternative. It is clear that some participants found the concept of transferable skills different from the way they were used to conceptualising return to work, and indeed some of the feedback at the end of each programme related to a desire to be “told what job to get”, despite this being clearly identified as not part of the programme at its commencement.

Curriculum vitae (CV) completion was the most readily achieved outcome after transferable skills identification.

CV completion	Frequency	%
Missing data	4	13.2
Completed CV	21	69.3
Did not complete	7	23.1

Table 24. Curriculum vitae completion at 3-month review

Completing a CV is strongly supported by case managers and other job seeking agencies, and included as a component of the WorkAbilities programme, although the use of a CV is not encouraged as a primary method for obtaining work. For many of the participants in WorkAbilities, completing the CV

provided an opportunity to document the transferable skills that had not been previously identified when their “traditional” forms of education had been used as the basis for development. A “functional” format for the CV was used, that is, identifying skill groups, and detailing the settings in which these skills had been used. This is in contrast to the “chronological” format, which documents in time sequence the qualifications and positions held by an individual. This format highlights any gaps in work history, fails to identify a broad range of skill when an individual has held only one position, and becomes less useful when an individual is considering a career redirection because it narrows the reader’s attention to preconceptions of what job titles describe.

Contacts list completion	Frequency	%
Missing data	5	16.5
Completed	17	56.1
Did not complete	11	36.3

Table 24. Contacts list completion at 3-month review

Registration with agency	Frequency	%
Missing data	5	16.5
Registered	11	36.3
Did not register	17	56.1

Table 25. Registration with job seeking agency at 3-month review

These two tables of registration with a job seeking agency, and developing a contacts list represent two divergent approaches to job seeking. One is the approach that “the specialists will find me a job”, where an agency is thought to have the contacts within industry, and can therefore be counted on to find “leads” and link the employer and prospective employee together. This is a preferred option for organisations like ACC, and is supported by case managers, who refer individuals to a service for a specified period of time, and then are considered to have “provided job seeking support”. This approach does have advantages: employers seeking employees can approach the agency to identify suitable candidates, candidates who are selected for interview have already passed one selection “hurdle” and can have confidence that they are

thought to be suitable, unsuitable candidates can be screened out, case managers referring individuals to an agency can select those agencies with good placement rates and exclude those with poor placement rates, and many agencies provide work trials when paid work is unavailable, or the individual needs to "reality test" his or her skills in a real work environment.

The alternative view, and one adopted by the facilitators of the WorkAbilities programme, is that most jobs are obtained via personal contact - and that developing these contacts should be a strong focus in a job seeking strategy. Participants are encouraged to identify a wide range of people who could be considered contacts to complement the use of other job seeking strategies such as vacancies advertised in the newspaper, door knocking, sending CV's or registering with a job seeking agency.

A common comment from participants was that they found it difficult to develop the personal contacts list, and would prefer to use a job seeking agency. Participants attributed this reluctance to their concern about managing rejection, "what would I say?", and "you don't want to go in blowing your horn". This is in striking contrast to the attitudes described in Richard Bolles book "What Colour is Your Parachute" (1998), on which material for the WorkAbilities Programme is taken. It is difficult to establish whether this is a cultural difference between North Americans and New Zealanders, or a feature of successful and unsuccessful job searching strategies that is more generic. It is acknowledged that individuals with low mood have some difficulty naming their skills, which is integral to developing and making contacts.

Days looking for work in last week	Frequency	%
0	25	82.5
1	2	6.6
2	2	6.6
3	2	6.6
4	1	3.3
5	0	0
6	0	0
7	1	3.3

Table 27. Days looking for work in the week before 3-month review

Days looking for work in last month	Frequency	%
0	23	75.9
1	0	0
2	2	6.6
3	2	6.6
4	4	13.2
5	0	0
6	0	0
7	0	0
8	1	3.3
9	0	0
10	0	0
11	0	0
12	1	3.3

Table 28. Days looking for work in the month before 3-month review

These two tables illustrate the number of times in the second or third month following the programme that participants reported they were actively seeking work (that is, answering advertisements, visiting workplaces, communicating with people on the contacts list, adding names to the contacts list, attending job seeking agencies). It should be remembered that these figures represent individuals who had failed to obtain paid employment. These figures also include those who had commenced other activities that support eventual return to work, such as retraining, or participating in a fitness programme.

An important influence on the maintenance of job seeking behaviour, and indeed, which return to work option was followed was the case manager. A surprising number of participants had no contact with their case manager at all

in the three months after the programme. The individual who maintained 15 contacts with the case manager in the three months following the programme had returned to full time work by the three month review. There was a correlation (.5, $p < .01$) between contacts made with case managers, and number of days looking for work in the past week.

Post-programme Zung, MPI, PSEQ and GSAB scores were compared using one-way ANOVA's for those groups who reported successfully completing important outcome goals versus those who did not. The outcome goals studied were skills naming, CV completion, contacts list completion, registration with job search agency, and work trials or site visits. The results are presented in Table 29, overleaf.

Table 29. One-way ANOVA's comparing post-programme scores by completion of outcome goals (N=32)

Post-programme variable	Skills Naming			CV Completion			Contacts List Completion			Registered with Job Search Agency			Work Trials and Site Visits		
	No Mean (sd)	Yes Mean (sd)		No Mean (sd)	Yes Mean (sd)		Yes Mean (sd)	No Mean (sd)		Yes Mean (sd)	No Mean (sd)		Yes Mean (sd)	No Mean (sd)	
Zung - Depression	50.67 (5.32)	42.85 (7.53)	F(1,31) =5.76 p=.023	46 (5.81)	45.1 (7.36)		44.94 (7.12)	45.33 (6.85)		45.33 (9.29)	45 (5.72)		42.8 (6.33)	46.19 (7.05)	
MPI - Interference	49.22 (6.96)	45.08 (7.14)		48.3 (3.01)	45.19 (8.48)		45.04 (7.15)	46.97 (8.2)		48.9 (5.84)	44.43 (7.95)		47.09 (11.76)	46.27 (6.56)	
MPI - Support	47.71 (8.18)	47.04 (8.03)		49.15 (7.1)	46.27 (8.55)		46.88 (9.93)	47.32 (5.31)		45.37 (8.09)	47.94 (8.56)		50.35 (4.18)	47.38 (7.91)	
MPI - Punishing	47.33 (9.3)	50.52 (7.49)		45.07 (6.07)	52.06 (7.92)	F(1,25) =4.49 p=.04	48.83 (7.09)	51 (8.69)		53.24 (9.51)	47.9 (6.12)		48.62 (8.32)	49.89 (8.03)	
MPI - Solicitous	42.62 (8.25)	45.14 (9.68)		43.21 (9.94)	44.82 (9.33)		47.16 (9.72)	40.81 (8.24)		42.51 (9.87)	45.51 (9.44)		51.62 (8.47)	42.9 (9.48)	
PSEQ - Total	26.33 (10.86)	38.15 (9.02)	F(1,31) =7.85 p=.01	35.62 (11.78)	35.14 (9.48)		36.38 (9.16)	34 (11.56)		32.89 (9.48)	36.53 (10.45)		34.8 (5.54)	35.05 (11.11)	
GSAB - Value	14.83 (1.47)	14.26 (2.16)		14.25 (1.98)	14.24 (2.19)		15.25 (1.39)	12.92 (2.27)	F(1,26) =11.3 p=.002 4	14.56 (2.01)	14.11 (2.23)		12.8 (3.42)	14.67 (1.56)	F(2,24)= 3.09 p=.06
GSAB - Self Efficacy	11.17 (3.87)	12.37 (2.13)		10.88 (3.44)	12.43 (2.13)		13.06 (1.95)	10.42 (2.68)	F(1,26) =9.19 p=.006	13.44 (1.67)	11.21 (2.7)	F(1,26) =5.17 p=.03	10.6 (2.41)	12.24 (2.74)	
GSAB - Social Comparison	3.83 (4.17)	3.22 (2.89)		3.5 (4.04)	3.48 (2.87)		2.75 (2.72)	4.75 (3.41)		4.44 (2.74)	3.21 (3.31)		4.6 (3.78)	3.57 (3.09)	

Post-programme variable	Skills Naming			CV Completion			Contacts List Completion			Registered with Job Search Agency			Work Trials and Site Visits		
	No Mean (sd)	Yes Mean (sd)		No Mean (sd)	Yes Mean (sd)		Yes Mean (sd)	No Mean (sd)		Yes Mean (sd)	No Mean (sd)		Yes Mean (sd)	No Mean (sd)	
GSAB - Self Monitoring	9.33 (1.86)	10.07 (2.6)		10.62 (2.77)	9.86 (2.37)		10.88 (2.39)	9.08 (2.35)	$F(1,26) = 3.9$ $p = .06$	9.33 (2.45)	10.47 (2.5)		9.2 (2.17)	10.43 (2.64)	
GSAB - Planning	11.83 (2.64)	11.85 (2.78)		12.75 (2.71)	11.52 (2.89)		12.31 (2.98)	11.25 (2.8)		11.22 (3.11)	12.16 (2.83)		11 (2.55)	12.29 (2.81)	
GSAB - Self Criticism	10.33 (2.66)	9.22 (2.55)		10.88 (2.3)	9.24 (2.47)		9.56 (2.63)	10.08 (2.35)		10.11 (1.96)	9.63 (2.73)		9.4 (2.51)	10.24 (2.23)	
GSAB - Self Reward	8 (3.03)	8.52 (2.47)		8.12 (3.04)	8.57 (2.6)		9.06 (2.59)	7.67 (2.81)		8.56 (3.17)	8.42 (2.59)		6.4 (2.41)	8.76 (2.7)	
GSAB - Positive Arousal	11.83 (3.06)	11.89 (2.87)		11.25 (2.66)	12.14 (3.15)		12.94 (2.11)	10.67 (3.65)	$F(1,26) = 4.3$ $p = .05$	12.78 (3.53)	11.58 (2.8)		10.2 (3.83)	12.29 (2.9)	
GSAB - Negative Arousal	10.67 (3.08)	8.74 (3.15)		11.5 (2.73)	8.62 (3.01)	$F(1,27) = 5.57$ $p = .025$	8.56 (3.71)	10.58 (2.07)		8.11 (4.14)	10.05 (2.59)		10.4 (2.3)	9.43 (3.43)	

Table 29 (cont.)

None of the Multidimensional Pain Inventory scale scores, with the exception of MPI Punishing were significant for any of the five job seeking activities. Zung depression scores were significant for skills naming, but no others. Pain Self Efficacy Questionnaire scores were significant for skills naming, but not related to any other job seeking activities. GSAB Value was associated with completion of Contacts List and attending Work trials and Site Visits, while GSAB Self Efficacy was strongly predictive of Contacts List completion, and less so for Registering with a Job Search Agency. GSAB Self Monitoring approached significance for Contacts List completion, but for nothing else. Interestingly, Planning, Self Reward and Self Criticism were not significant for any of the job seeking measures. Positive arousal and negative arousal were significant for Contacts List completion and Curriculum Vitae completion respectively.

Value and Self Efficacy are associated with completion of those job seeking activities that are thought to be important for obtaining work.

An important observation was developed from both the above outcome results and comments from the group. Participants had remarked throughout the programme that they found it difficult to (1) meet in a group setting, (2) talk about their abilities rather than their disabilities, (3) develop a contacts list, (4) complete a "mission" during the programme that involved visiting a work site and discussing a job option with someone doing that job. This was demonstrated regularly during the programmes when participants avoided completing their "mission", or did not want to be video-taped role-playing an interview, or found it challenging to state to the group the skills they had, or the type of work they wanted. This was despite many rehearsals within the group, practice with written prompts to answer common questions, and verbal feedback on presentation. Even at the end of the six week programme, some individuals had difficulty stating what their preferred skills were to the group.

A key component of job seeking is the ability to at some point, meet face to

face with a prospective employer (or person with the power to hire or fire), and it is a given that the individual must present as confident of his or her skills, and willing to become "part of the team". If, as appears possible from these results, many individuals experience a high level of social anxiety, it is clear that they would (1) prefer to use job seeking strategies where face to face contact is limited, and the perceived chances of success are greater (for example, using job seeking agencies), and (2) avoid using strategies where face to face contact is unpredictable, where there is high risk of rejection, and where their self efficacy for work is under scrutiny. No measures of social anxiety were taken during this study, but the possible influence of it in musculoskeletal pain has been explored by Asmundson, Jacobson, Allerdings, & Norton (1996). This study examined the presence of social phobia in a group of workers referred with chronic musculoskeletal pain, and found 34% of the 47 participants met criteria for DSM-IV diagnosis of social phobia.

Job seeking is thought to be a lengthy process requiring sustained effort with little obvious transitional "markers" on the path to success. It is possible that by taking measures two to three months after completing the programme results could be lower than if the measures were taken sooner. However, it was thought more useful to measure a longer term result, as these are more likely to represent a durable outcome.

Modifications to the model

The initial model of work disability could be expanded to include the role of social anxiety. This could help to explain how individuals with gradual process or the "I just stayed at work until I gave up" presentations could occur. It could also explain some of the reluctance individuals have to changing their ways of working - it requires considerable assertiveness to state a preference to perform work tasks in a "different" way because of what is perceived by many as a "failure". Anxiety has been implicated in the development of some chronic pain problems especially where high levels of physiological arousal accompany pain. It could also be seen to maintain chronic pain, especially

where an individual is being asked to confront very fear-provoking situations such as job seeking where failure is very likely.

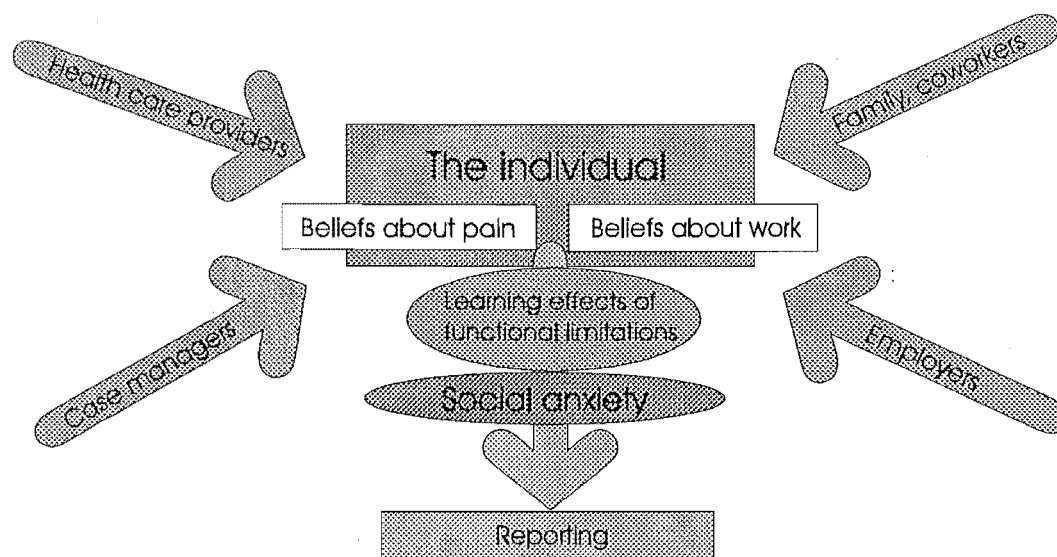


Figure 11. Modified model of work disability, including social anxiety

Chapter Seven

Discussion

The purpose of this study was to develop a comprehensive conceptualisation of work disability extended beyond the biomedical model. This needs to explain the development, and maintenance of a problem that has traditionally been unidimensionally attributed to pain alone. To this end, an exploratory study of individuals presenting for the WorkAbilities Programme was conducted.

The results of quantitative analysis suggest that individuals selected for the programme did not differ significantly from those offered alternative interventions in terms of pain severity, depression, and self efficacy for pain. However, as a group those selected reported they were more active.

Even though almost all of those selected to participate in the programme had attended a previous pain management programme, the majority were still classified as Dysfunctional by the MPI, suggesting that many continued to experience high levels on the Pain Intensity, Interference and Distress subscales, with low scores on the Life Control subscale. As indicated by the qualitative analysis of interview data, the majority of individuals had a biomedical focus on what was causing their pain, or were concerned about hurt equalling harm. Their responses for pain management strategies they could use in the workplace indicate that they perceive most strategies as requiring withdrawal from activity (which is unacceptable at work), and that they had difficulty identify active coping strategies for the workplace. The comments made were that it was possible to use pain management strategies

at home where choices were available, but that in the workplace there was less sense of personal autonomy and choice.

These above findings fit with the “lay” understanding of pain that many individuals have at the onset of a pain problem. It is noteworthy that these participants had attended a pain management programme, after having been through a comprehensive biomedical, psychosocial, vocational and functional evaluation, and still adhered to these beliefs. This indicates these beliefs have enduring qualities and are not readily amenable to modification. It also challenges the notion of generalisability of pain management strategies outside a pain management programme, except within a home environment. This is an area of outcome evaluation that remains under-researched, along with the related concept of relapse prevention in pain management. That is, the issue of generalisability of these skills to the work place needs to be specifically addressed, either within those programmes, or in those specifically designed to address return to work issues.

This group of individuals referred to WorkAbilities had expressed their own desire to return to work to the staff at the Pain Management Centre. It is understandable that participants would provide socially desirable responses to please the external agencies “encouraging” them to return to work. However, the disparity between mean GSAB Value (14.24, $sd=2.19$) and GSAB Self Efficacy (10.97, $sd=2.89$) does suggest that these individuals have established a goal that they may not necessarily believe they can achieve. Despite scores on GSAB Planning being significant for distinguishing between those selected and those excluded from the programme, GSAB Planning was not a significant predictor of completion of any of the five outcome variables measured, while both GSAB Value and GSAB Self Efficacy were predictive of two outcomes. This suggests that providing participants with skills to obtain work is insufficient without attention being paid to whether the individuals believe they can return to work.

Behaviour change requires some form of internal drive or reinforcement. The results of the study suggest that behaviour change may be reinforced by positive or rewarding contacts with the ACC case manager. Participants in one programme about half way through this study made it very clear that they found discussing their return to work plans with their case manager the most anxiety-provoking aspect of returning to work. After this discovery, specific strategies for working with their case managers were developed within the group including rehearsal, written notes, information from an un-involved case manager (of their rights and responsibilities), and were invited to ask their case manager to attend the review session immediately after the programme where a proposed return to work plan would be presented. This attempted to reduce the level of anxiety identified by participants by giving them skills and information, and using the facilities at Pain Management Centre as a neutral meeting place, with neutral support from Team Members.

Case managers often use job seeking agencies to help with placement of individuals with long term work disability. There are two major problems with reliance on this as a successful job placement strategy. The *first* is that if individuals referred to the agency do not have sufficient self efficacy for being able to sustain work, they will find it difficult to identify skills (and will rely on the skills they may have used before their problem developed) which will unnecessarily limit the range of work opportunities considered for placement. The *second* is that if social anxiety is part of the problem, these individuals will need to attend a job interview, where they must explain the implications of having a chronic pain problem on their work performance. This places them in a high risk situation for social anxiety, particularly if they lack self efficacy for using pain management strategies in a workplace. Having obtained a job, these individuals must maintain their assertiveness for implementing pain management strategies in that workplace, while perhaps continuing to hold strong beliefs that hurt does equal harm. A difficult challenge!

The case formulation approach as used during this study identifies those

features relevant to an individual and provides an opportunity for participants to identify their specific learning needs for the WorkAbilities programme. This allows a semi-structured group format to be used for the programme, while still meeting individual needs. There are themes of barriers to returning to work common across all five patterns of development - acceptance that having pain does not necessarily mean stopping work, that pain management can be integrated into normal life, that all of us have skills, that it is possible to learn ways to do things differently, and that practice in a safe environment makes it easier to feel confident about this, and finally that we can learn from each other. Demedicalisation of the experience of pain-related work disability provides a range of possible interventions unavailable under a biomedical model.

Limitations to this study

The sample from this study is drawn from individuals who had been referred to and seen at Burwood Pain Management Centre. At the time of this study, referrals were wait-listed for at least six months before receiving a medical appointment. A further six months could elapse before acceptance for Evaluation, and then attendance at a pain management programme. Referring sources were aware of this, and many deferred making a referral until all other options had been tried. This meant that only those who were unsuccessful in their attempts to manage their problems were referred. As was noted in the earlier literature review, the longer an individual is off work, the less likely they are to return to work. The WorkAbilities programme skimmed participants thought most likely to benefit from the programme, but it should be recognised that these individuals form a unique sample, unlikely to be found outside this treatment setting. Therefore attempts to apply the exploratory model without modification to another population should be made with caution. However, the idea of exploratory research is to expose interesting patterns of data that can be explored elsewhere, and it is hoped this happens.

Allied to this point, is the fact that this setting is a clinical one, with constraints

of time, personnel, and other resources. These constraints have led to adopting research methods that could be improved upon. For example, the interview data was derived from the handwritten notes taken during screening interviews, and was later analysed by the author. It would have been preferable to use tape-recorded transcripts, and to have used more than one coder, but this was impractical within the clinical setting, as it would have added additional time, complexity and expense to the project.

An attempt to quantify and provide time frames for outcome data so as to reduce the effects of limited recall was made. Hence, participants were asked to identify the number of active job seeking efforts they had made during the last week, and during the last month. There was no attempt made to substantiate answers given, so the accuracy of this data is subject to some question, as is any data obtained by self-report.

Areas for further study

When multidimensional models are used for human behaviour, it is always tempting to suggest more variables to be included. This serves to complicate a model, both mathematically, and in clinical use. In the exploratory model described initially, the addition of one further modifying variable is, however, merited. This is the role of social anxiety. Social anxiety was not identified from the original literature, although the role of anxiety in the development of chronic pain has been debated many times. It could provide an explanation for the onset, development and maintenance of work disability, and provides some possible avenues for intervention. It links well with the concepts of self efficacy, expectancies and the establishment of goals. Social anxiety also colours the interpretation of past learning, and perception of future opportunities. It may also be implicated in the interactions between the individual and health care providers, employers, case managers and family members who appear to provide significant external "drive" to return to work efforts.

Exploratory analysis can seem incomplete because there is no definitive “yes” or “no” conclusion to be drawn. Instead a range of further questions begin to form. As Tukey puts it, “Science ... DOES NOT BEGIN WITH A TIDY QUESTION. Nor does it end with a tidy answer [emphasis from the original]”, and “finding the question is often more important than finding the answer” (Tukey, 1980, p.24). The next step is also provided by Tukey who states “Some questions are important ... If the necessary resources of money, skill, and data management are available, we will go ahead. Our best watchwords are often these:

1. Randomise, RANDOMISE!
2. Preplan THE main analysis (having even two main analyses may be too many).” (Tukey, 1980, p.24)

In this study, a next step that seems useful is to establish the role of social anxiety in the development and maintenance of work disability. Currently there are no measures of general anxiety routinely given to the individuals referred to Burwood Pain Management Centre, although a measure of Pain Anxiety is now being administered to individuals referred for Evaluation for work disability. This questionnaire, developed by McCracken, Zayfert and Gross (1992) identifies four scales measuring somatic anxiety, cognitive anxiety, fearful appraisal and escape/avoidance responses specifically related to fear of pain. It is not a measure of generalised anxiety, although is positively correlated with scores on the Spielberger Trait Anxiety Scale.

The instruments used by Asmundson, Jacobson, Allardings and Norton (1996) in their examination of the prevalence of social phobia amongst work disabled individuals with chronic musculoskeletal pain, included the Anxiety Sensitivity Index (Peterson & Reiss, 1992), the Marks and Mathews Fear Questionnaire (Marks & Mathews, 1979) and the Structured Clinical Interview for DSM-IV (Stein, Hazen & Walker, 1994). One of these instruments, in a short form (possibly the Marks and Mathews Fear Questionnaire which has a social anxiety subscale), may provide sufficient information for the clinical impact of

social anxiety to be established. Specific, individualised goals to develop skills for managing this anxiety could then be developed at Evaluation, and the WorkAbilities programme could be used to develop specific strategies useful in job seeking.

It may be useful to develop some experimental investigations where a single variable is examined, such as the efficacy of including case managers at time of review, or the role of partners in supporting return to work attempts. Further study of the processes individuals use when beginning in a new work environment, particularly the establishment of interpersonal relationships and use of assertiveness strategies could also be helpful.

Earlier, concern is raised by the apparent lack of generalisation of pain management skills beyond the home setting, and adoption of primarily passive strategies (those that could restrict participation in work activity) for managing pain. It was suggested that one of the influences on this was social anxiety, or individuals having difficulty when implementing behavioural changes that require the individual to value his or her needs above another. The correlation between a measure of social anxiety and endorsement of active or passive strategies for managing pain could provide information useful for developing strategies for relapse prevention. The underlying behavioural and cognitive schemata that support this type of behaviour could then be specifically targeted as part of a pain management programme.

An alternative?

Chronic pain, and work disability are not equivalent. There are many possible explanations for an individual presenting with both problems, but using a biomedical model for management does not serve a large proportion of individuals well. An alternative conceptualisation of work disability as a behavioural response to interacting factors including pain, anxiety, beliefs about pain, beliefs about work, and influences from key stakeholders in work disability provides several attractive features for diagnosis and management.

Firstly, it offers an opportunity to demedicalise what is now being thought of as the “wellness” or ongoing management problem of chronic pain. This helps to normalise the lifestyle adopted to manage pain, giving individuals a sense of control over their activities, and fostering active responsibility for choices made. Secondly, because it challenges the biomedical assumption that “treatment” will “cure” the problem, it provides an opportunity to reduce the number of ineffective interventions proffered to individuals with chronic pain. Once the biomedical assumptions of “causality” of pain are suspended, efforts to reduce nociception by reducing biomechanical strain, postural imbalance, use of anaesthetic procedures or other “techno-fixes” (to quote a colleague!) could be redirected toward identifying alternative mechanisms that may be maintaining the work disability, and be more amenable to change that pain intensity.

Once the supremacy of pain intensity as the cause of work disability is challenged, it is possible to enquire into alternative mechanisms that may play a part in developing and maintaining the problem. The case formulation approach used in the Evaluation process for this study supports the identification of a range of mechanisms that extend beyond pain intensity, and ineffective pain management to self efficacy, expectancies, goal setting mechanisms, beliefs about work and how work “should” be carried out, and many others. These mechanisms are explicitly identified in the model of work disability described above.

For pain management programmes, the model provides a possible mechanism for conceptualising relapse prevention. Relapse in pain management has been described in terms of self-regulation mechanisms (as described by Baumeister & Heatherton, 1996; Karoly, 1993). This model identifies that core cognitive and behavioural schema being challenged by the adoption of new behavioural patterns could be those related to “I must not upset others”, or “my needs are not as important as others”. Socially anxious individual may have great difficulty using their newly formed pain management skills in “high risk” situations where they would habitually respond by acquiescing. This may

provide immediate relief from anxiety (therefore strongly reinforcing the avoidance behaviour), while generating feelings of guilt that make re-establishing the new behaviour more difficult (the "what the hell" effect!).

This model accepts that individuals have an individual understanding of their pain and the impact it has on work. Rather than immediately labelling these beliefs as inaccurate, and therefore to be challenged, this model accepts these beliefs as valid to the individual, but seeks to establish their accuracy in the "real world" of the individual. This reduces conflict and enhances collaboration between the individual and clinician.

Work disability is a big problem. Big in terms of the resources expended on interventions, compensation payments, human energy and loss to industry to reduce the impact of work loss. Big in terms of the hours devoted to research for prevention and management of the problem. Even bigger in human cost as individuals respond in their individual ways to the problem of pain that they interpret as affecting work. Adopting a new understanding of pain-related work disability that accepts the reality of the individual's understanding of their problem, and attempts to work with it to find solutions to problems by providing information, skills and support may provide researchers with a fruitful series of new questions to be investigated.

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Appendix A

Ethical approval

CANTERBURY ETHICS COMMITTEE

1 March 1999

Bronwyn Thompson
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CHRISTCHURCH

South Office
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Dear Bronwyn

Retrospective review of data held on medical files for patients attending Burwood Pain Management Centre WorkAbilities programme.

Thank you for your letter of 16 February regarding the above project. This project has now been reviewed and is considered audit as defined in the National Standard for Ethics Committees, July 1996. As audit, it does not require ethical approval.

Although you obtain consent for patients' information to be held on file for future reference and to be shared amongst team members of the Pain Management Centre, family doctor and other professionals as necessary, it is suggested that patients are also advised that their information may also be used for the purpose of auditing the WorkAbilities programme.

Yours sincerely



Sally Cook
Ethics Committee Administrator

Appendix B

WorkAbilities Intervention Programme Information

- ◆ **The WorkAbilities Programme is for people**
 - ⇒ who are off work due to a long term musculoskeletal pain problem
 - ⇒ who have no job to return to
 - ⇒ who have identified that they want to return to work

◆ **The process**

- 1 Referral (from a medical practitioner)
- 2 WorkAbilities Evaluation (for acceptance onto the programme or referral to another agency)
- 3 Documentation completed - Individual return to work plan
- 4 WorkAbilities programme
- 5 Post-programme self review
- 6 Group review and long term follow-up

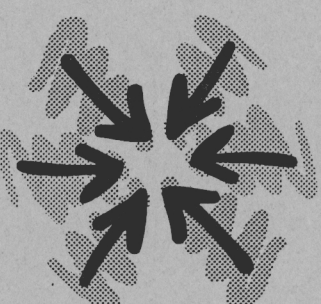
◆ **Inclusion criteria**

- ⇒ all referrals must be *signed by a medical practitioner*. These should be on the referral form supplied, and may be hand-written
- ⇒ all participants should be receiving weekly compensation from ACC
- ⇒ participants should have less than one hour "down time" each day
- ⇒ identification from the person that *s/he wants* to return to work (including voluntary work, work trials, part time work etc)
- ⇒ participants do not currently have a job (but we will prioritise those who have *recently* lost their job)

◆ **Exclusion criteria**

- ⇒ significant mood, anxiety, personality or substance abuse disorder
- ⇒ presence of major cardiac problems, head injuries, significant difficulties with balance, fitting, neurological disorders, or other significant medical problems

WorkAbilities



Pain Management that Works

Green Flag
Referral



Please complete the rest of this form

Name	
Address	Telephone
Hospital Number	PMC Referrer
GP Name & Phone	

Questions to answer before referring:

Has this person said s/he *wants* to return to work?

Is s/he working at present?

Has this person a job to go back to?

Does s/he receive weekly compensation from ACC?

Does this person have less than one hour of "down time" each day?

Yes No

☐ ☐

☐ ☐

☐ ☐

☐ ☐

☐ ☐

Are there any medical contraindications (***excluding*** pain) to this person increasing his/her activity level to include work?

Cardiovascular

None 2 3 4 5 Extreme 6

Neuromuscular (excluding pain)

None 2 3 4 5 Extreme 6

Respiratory

None 2 3 4 5 Extreme 6

Central Nervous System

None 2 3 4 5 Extreme 6

Endocrine

None 2 3 4 5 Extreme 6

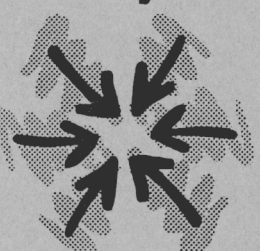
Medication side effects

None 2 3 4 5 Extreme 6

Do you have any recommendations for work place restrictions (NB ***NOT*** related to limitations experienced because of pain)

Primary Site of Pain: Please tick ONE only	
0	Head, Face and Mouth
1	Cervical Region
2	Upper Shoulder and Upper Limbs
3	Chest and Ribs
4	Thoracic and Thoracic Spine
5	Abdominal
6	Lower back, Lumbar spine, sacrum and coccyx
7	Lower limbs
8	Pelvic Region
9	Anal, Perineal and Genital

WorkAbilities



WorkAbilities Application Form

This application form gives you and us a chance to get to know some of the issues that may be important for us to consider when thinking about returning to work. If you're interested in WorkAbilities or returning to work, please complete this form during the Programme, and hand it in to Gail or Vicki at Reception. After the Programme, we will contact you as appropriate. If work is not for you, please still think about the questions. Don't hesitate to ask to see me if you have any questions.

Bronwyn Thompson, Vocational Management

I am interested in the WorkAbilities Programme.

My name is: _____

Address: _____

_____ Ph: _____

Pain Management Programme: Residential/Outpatient (date started) _____

Please answer the following questions:

Do I want to go back to work?

[] yes [] no

Why do I want to go back to work? *List as many reasons as you can, both positive and negative e.g. to increase my financial independence, to keep ACC off my back, to increase my self esteem, if I wait I will be too old ...*

-
-
-
-

What are my challenges for going back to work? *List as many challenges as you can e.g. lack of paper qualifications, childcare commitments, fear of flare-ups, transport difficulties ...*

-
-
-
-

What pain management strategies do I use to manage my pain? *Put a star by any you think will be difficult to actually do while working e.g. pacing ...*

•

•

•

•

When is the best timing for me to do a Programme? *Do you have the energy right now, is there a better time?*

[] immediately following the Pain Management Programme

[] after three month review of the Pain Management Programme

[] a specific month (state which...) _____

[] when I have achieved a specific goal (state the goal...) _____

WorkAbilities
Pain Management that Works
Discharge Report

Sticky Label here!!!!

Date of Review:

Team member providing followup:

Key Transferable Skills: (clustered)

1.

2.

3.

4.

Work Options using skills

1.

2.

3.

4.

Plan for Return to Work (Next Steps)

1.

2.

3.

4.

5.

6.

Important Issues Identified

•

•

•

•

Strategies Used

-

-

-

Ongoing Goals

-

-

-

Team Member Comments

Signed: _____ (participant)

Signed: _____ (team member)

Date: _____

Copies to: Notes GP ACC other(who?) _____

Barriers to RTW - Setting the Culture

Purpose: to establish the group's purpose for being here, identify areas that need to be covered during the programme (and the outcomes they're expecting), to get to know each other and establish ground rules for the programme, to discuss common barriers to RTW

Process: Welcome and team introduction.

Handouts on programme but don't go through them.

Get participants to introduce themselves and say what their last job was and when they last worked.

Introduce yourself, and your role in the group as facilitator - establish that this group is about us working together!

Do housekeeping etc

Then get the group to tell you what they want from the programme - may be helpful to get them to say what they want to get out of the programme.

List on whiteboard.

Then if appropriate, go through programme and establish that we'll cover all these things, but any odd-bods can be put in as needed.

Ask them why they want to go back to work - get up on whiteboard - and start identifying what work is. - refer them to the sheet on what I gained from stopping work, what I lost from stopping work etc etc

Get them to discuss what might get in the way of returning to work - start this off by going through what I may lose if I RTW, what I may gain if I RTW

Then establish from each one their own individual reason for RTW

Group culture - you can do this any way, I just ask them what they would like, such as confidentiality, respect, having fun, not groaning at functionals! List on whiteboard, then if possible get Vicki to creatively put it together on a fancy bit of paper in a fancy layout. Then the one that is up there (WA#21) can come down.

Mission: begin work on identifying five achievements - specify that it has to be something they can describe HOW, What WITH, the OUTCOME etc - so no stories about having wonderful kids!!!

Skills Identification

Purpose: to identify the range of skills participants already have.

Process: Ask the group to share one of their success stories. Make sure as they do this that they have chosen tasks that have a process, outcome and that they can be specific about the incident. (Too broad and it's too hard to identify specific skills)

Then get them into pairs and work together to complete skills sheets. Tell them about levels of skill, and make sure they appreciate that they are looking for underlying patterns of skills, so need to do a range of different tasks - at least 5.

Levels of Skill: There are four levels of skill

Level One - skills that you find hard, and other people can tell you're finding it hard. New skills, e.g. learning to drive, first time on computer, roller blading

Level Two - skills that you've done for a while, that look as if you're finding them easy but still demand quite a lot of your attention. e.g. using a spreadsheet on the computer for me looks easy to others but I have to think about what I'm doing, it's not automatic, moving from manual to auto for the first time

Level Three - skills that you have done a lot of, look easy to others and feel easy to you e.g. driving, walking, typing

Level Four - skills that you've always had so never have to think about e.g. good motor coordination (used in walking, dancing, riding bike), good communication skills (interviewing, telephone work, leading a group).

Mission: to complete their five achievements by Wednesday next

Points to note: Get them to begin the process of going through their achievements. Remind them that we're taking the labels off themselves and trying to uncover a range of skills that could be used in other settings - think of using the housewife/mother who can call herself an executive!

Make sure they know that it's the total number of ticks in each one that counts, they can only put in one tick for each achievement. This way they get to see patterns of skills that they use frequently.

Clustering Skills

Purpose: to group together favourite skills that could form the basis of a new career.

Process: Make sure they have completed their skills ID, get their skill sheets out, handout clean skill sheets.

Ask them to identify the 9 - 15 skills that

- have the most ticks
- delete any of these that they really don't want to use in work any more
- then go through any of the other skills not ticked and find any that they would really like to use in work
- then transfer these to the clean skill sheets
- cut them out
- arrange them in comfortable groups - usually with the most important skills (or favourite skills) in the centre, and others going out from there
- get them to job down any job options they can see from this cluster
- then get them to rearrange the cluster differently to see whether there are any other possibilities
- then get the group to go around each one and write down their brainstorming suggestions (remember the rules of brainstorming!)
- ask them what do they know about these jobs?
 - what do they need to know about these jobs to make an informed decision
 - hammer home the idea they need to *research*
- get some agreement to choose one or two to research

Mission: do the research (may need to problem-solve methods to achieve this, particularly anyone who is anxious about interviewing, also those convinced they know all about these jobs, or those that think people won't want to talk to them)

Points to note: this is a fun session, use colour, music, and paste the skills down once they've reached a decision about what skill clusters "look right".

Appendix C

Data Gathering Devices
Questionnaires
Interview

Pain Management Centre - Ability Services, Burwood Hospital
Client Information Sheet - Return to Work IASP Pain Site [] MPI # []

Name: _____ DOB _____

Address: _____

Phone number (home) _____

Phone number (work) _____

Occupation at time of stopping work _____

Please tick () in the appropriate box

Gender

Male ☐ Female ☐

Ethnic Group

NZ Maori ☐ Caucasian ☐
 Pacific Islander ☐ Other ☐

Marital Status

Single ☐ Married ☐
 De Facto ☐ Separated ☐
 Divorced ☐ Widowed ☐

Number of dependents

Male/Female _____ years Male/Female _____ years
 Male/Female _____ years Male/Female _____ years
 Male/Female _____ years Male/Female _____ years

Current employment status

Full time work ☐ Part time work ☐
 Work experience ☐ Voluntary work ☐
 Study ☐ Not cleared for work ☐

When did your pain problem begin? _____ month _____ year

How did the pain problem begin?

Gradually ☐ Twisting ☐ Lifting ☐
 Fall ☐ Crush ☐ Bending ☐
 Reaching ☐ Blow to area ☐ Motor vehicle ☐
 Other _____

General Practitioner

Dr _____ Phone _____

Medical Centre

ACC Case Manager _____ Direct line _____

Office _____

Job Change Process

1 2 3 4 5

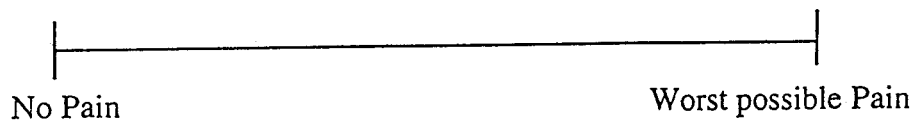
Have only just
 begun thinking
 about changing/finding work

Have been actively
 trying to change/find
 work for over one year

Pain Management Programme	<input type="checkbox"/> Residential	<input type="checkbox"/> Outpatient
Date started _____		
Name of contact person from programme _____		

Pain Rating

Place a mark (X) on the line to indicate your level of pain *right now*



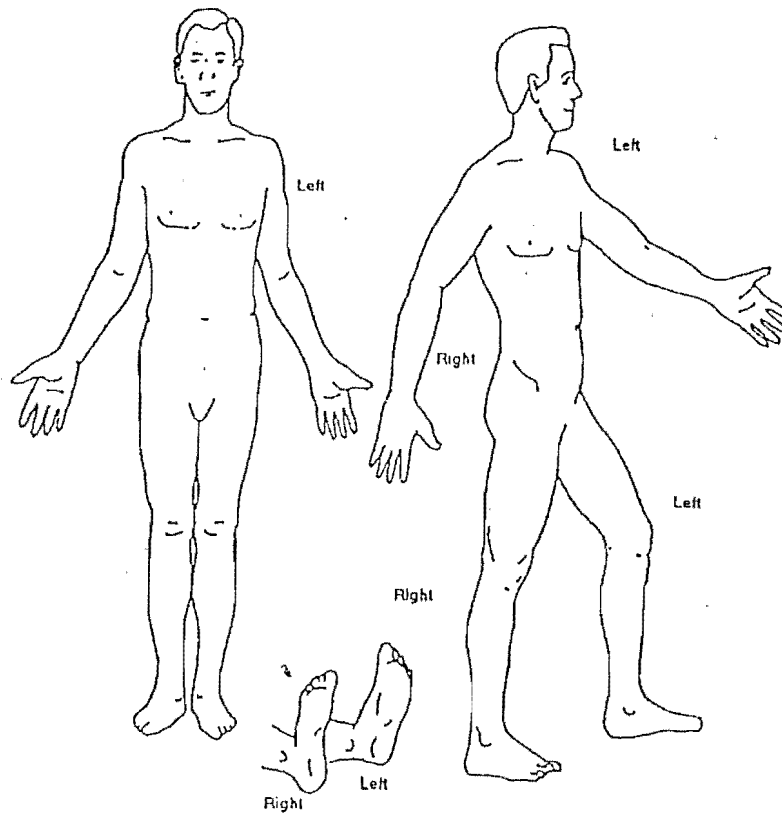
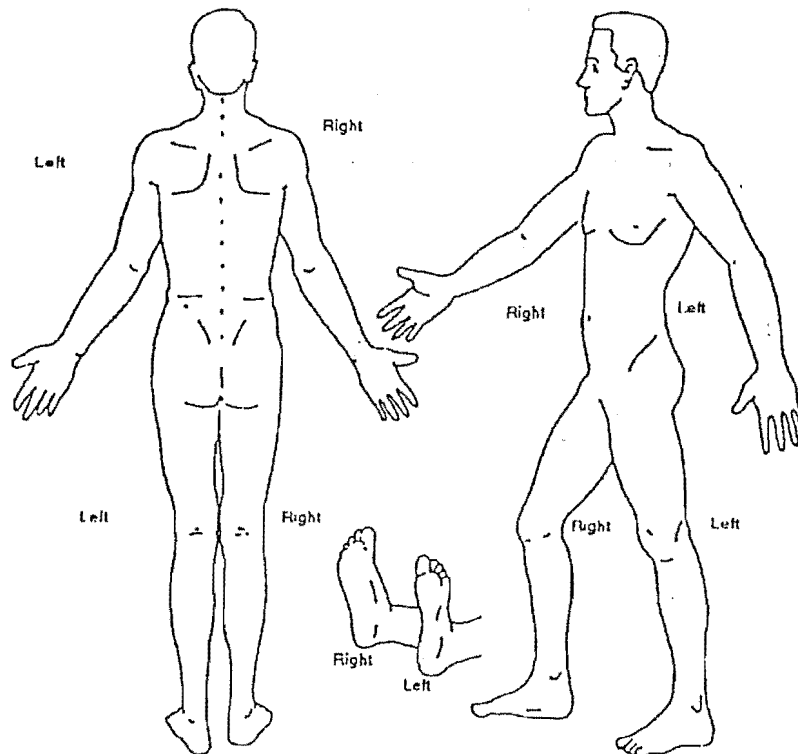
Place *two* marks (X) on the line to indicate the **LEAST** and the **WORST** pain you experience



Pain Drawing

Please mark on the drawing where you feel these sensations using these symbols:

	Pain	XXXX	Cramp or Aching	/ / / /
Numbness or Pins & Needles		OOOO	Burning or Hot Areas	Z Z Z Z



Please turn to the next page

Instructions:

Under each question is a scale to mark your answer. Read each question carefully and then circle a number on the scale under that question to indicate how that specific question applies to you. An example may help you to better understand how you should answer these questions.

0 1 2 3 4 5 6
Not at all nervous Extremely nervous

If you are not at all nervous when riding in a car in heavy traffic, you would want to circle the number 0. If you are very nervous when riding in a car in heavy traffic, you would then circle the number 6. Lower numbers would be used for less nervousness, and higher numbers for more nervousness.

1. Rate the level of your pain at the *present moment*

0 1 2 3 4 5 6
No pain Very intense pain

2. In general, how much does your pain interfere with your day-to-day activities?

0 1 2 3 4 5 6

No interference Extreme interference

3. Since the time your pain began, how much has your pain changed your ability to work? [] Tick (✓) here if you have stopped working for reasons other than your pain.

0	1	2	3	4	5	6
No change						Extreme change

4. How much has your pain changed the amount of satisfaction or enjoyment you get from taking part in social and recreational activities?

0 1 2 3 4 5 6
No change Extreme change

Please turn to the next page

5. How supportive, or helpful is your spouse (significant other) to you in relation to your pain? By significant other we mean either your spouse or partner, or a close family member, or a relative, or if you live alone, the person or friend you see most often.

0 1 2 3 4 5 6
Not at all Extremely
supportive supportive

6. Rate your overall mood during the *past week*.

0 1 2 3 4 5 6
Extremely low Extremely high

7. How much has your pain interfered with your ability to get enough sleep?

0 1 2 3 4 5 6
No Extreme
interference interference

8. On the average how severe has your pain been during the *last week*?

0 1 2 3 4 5 6
Not at all Extremely
severe severe

9. How well are you able to predict when your pain will start, get better, or get worse?

0 1 2 3 4 5 6
Not at all Very able
able to predict to predict

10. How much has your pain changed your ability to take part in recreational and other social activities?

0 1 2 3 4 5 6
No change Extreme change

11. How much do you limit your activities in order to keep your pain from getting worse?

0 1 2 3 4 5 6
Not at all Very much

12. How much has pain changed the amount of satisfaction or enjoyment you get from family-related activities?

0 1 2 3 4 5 6
No change Extreme change

13. How worried is your spouse (significant other) about you because of your pain?

0 1 2 3 4 5 6
Not at all Extremely
worried worried

14. During the *past week* how much control do you feel that you have had over your life?

0 1 2 3 4 5 6
No control Extreme control

15. On an average day how much does your pain vary (increase or decrease)?

0 1 2 3 4 5 6
Remains Changes
the same a lot

16. How much suffering do you experience because of your pain?

0 1 2 3 4 5 6
No suffering Extreme suffering

17. How often are you able to do something that helps to reduce your pain?

0 1 2 3 4 5 6
Never Very often

18. How much has your pain changed your relationship with your spouse, family, or significant other?

0 1 2 3 4 5 6
No change Extreme change

19. How much has your pain changed the amount of satisfaction or enjoyment you get from work? ☐ Tick here (✓) if you are not presently working

0 1 2 3 4 5 6
No change Extreme change

20. How attentive is your spouse (or significant other) to you because of your pain?

0 1 2 3 4 5 6
Not at all Extremely
attentive attentive

21. During the *past week* how much do you feel that you've been able to deal with your problems?

0 1 2 3 4 5 6
Not at all Extremely well

22. How much control do you feel that you have over your pain?

0 1 2 3 4 5 6
No control A great deal
at all of control

23. How much has your pain changed your ability to do household chores?

0 1 2 3 4 5 6
No change Extreme change

24. During the *past week* how successful were you in coping with stressful situations in your life?

0 1 2 3 4 5 6
Not at all Extremely
successful successful

25. How much has your pain interfered with your ability to plan activities?

0 1 2 3 4 5 6
No change Extreme change

26. During the *past week* how irritable have you been?

0 1 2 3 4 5 6
Not at all Extremely
irritable irritable

27. How much has your pain changed or interfered in your friendships with people other than your family?

0 1 2 3 4 5 6
No change Extreme change

28. During the *past week* how tense or anxious have you been?

0 1 2 3 4 5 6
Not at all tense Extremely tense
or anxious and anxious

Section 2

In this section, we are interested in knowing how your significant other responds to you when he or she knows that you are in pain. By significant other we mean either your spouse or partner, or a close family member, or a relative, or if you live alone, the person or friend you see most often. On the scale listed below each question **circle a number** to indicate **how often** your spouse (or significant other) responds to you in that particular way when you are in pain. Please answer **all** of the 14 questions.

1. Ignores me.

0	1	2	3	4	5	6
Never						Very often

2. Asks me what he/she can do to help.

0	1	2	3	4	5	6
Never						Very often

3. Reads to me.

0	1	2	3	4	5	6
Never						Very often

4. Gets irritated with me.

0	1	2	3	4	5	6
Never						Very often

5. Takes over my jobs or duties.

0	1	2	3	4	5	6
Never						Very often

6. Talks to me about something else to take my mind off the pain.

0	1	2	3	4	5	6
Never						Very often

7. Gets frustrated with me.

0	1	2	3	4	5	6
Never						Very often

8. Tries to get me to rest.

0	1	2	3	4	5	6
Never						Very often

Please turn to the next page

9. Tries to involve me in some activity.

0 1 2 3 4 5 6
Never Very often

10. Gets angry with me.

0 1 2 3 4 5 6
Never Very often

11. Gets me pain medication.

0 1 2 3 4 5 6
Never Very often

12. Encourages me to work on a hobby.

0 1 2 3 4 5 6
Never Very often

13. Gets me something to eat or drink.

0 1 2 3 4 5 6
Never Very often

14. Turns on the TV to take my mind off my pain.

0 1 2 3 4 5 6
Never Very often

Section 3

Listed below are 19 daily activities. Please indicate *how often* you do each of these by *circling a number* on the scale listed below each activity. Please complete all 18 questions.

1. Washes dishes

0 1 2 3 4 5 6
Never Very often

2. Mow the lawn [] Tick (✓) here if you do not have a lawn to mow.

0 1 2 3 4 5 6
Never Very often

3. Go out to eat.

0 1 2 3 4 5 6
Never Very often

Please turn to the next page

4. Play cards or other games.

0	1	2	3	4	5	6
Never						Very often

5. Go grocery shopping.

0	1	2	3	4	5	6
Never						Very often

6. Work in the garden [] Tick (✓) here if you do not have a garden.

0	1	2	3	4	5	6
Never						Very often

7. Go to a movie.

0	1	2	3	4	5	6
Never						Very often

8. Visit friends.

0	1	2	3	4	5	6
Never						Very often

9. Help with the house cleaning.

0	1	2	3	4	5	6
Never						Very often

10. Work on the car [] tick (✓) here if you do not have a car.

0	1	2	3	4	5	6
Never						Very often

11. Take a ride in a car or bus.

0	1	2	3	4	5	6
Never						Very often

12. Visit relatives [] tick (✓) here if you do not have relatives within 150km.

0	1	2	3	4	5	6
Never						Very often

13. Prepare a meal.

0	1	2	3	4	5	6
Never						Very often

14. Wash the car [] tick (✓) here if you do not have a car.

0	1	2	3	4	5	6
Never						Very often

15. Take a trip.

0	1	2	3	4	5	6
Never						Very often

16. Go to a park or beach.

0	1	2	3	4	5	6
Never						Very often

17. Do the laundry.

0	1	2	3	4	5	6
Never						Very often

18. Work on a needed household repair.

0	1	2	3	4	5	6
Never						Very often

19. Engage in sexual activities.

0	1	2	3	4	5	6
Never						Very often

Please indicate for each of these questions which answer best describes how you have been feeling recently.
Please answer all the questions.

	Never	Now and then	Quite often	Most of the time
I feel downhearted and sad				
Morning is when I feel best				
I have crying spells or feel like it				
I have trouble sleeping at night				
I eat as much as I used to				
I still enjoy sex				
I notice that I am losing weight				
I have trouble with constipation				
My heart beats faster than usual				
I get tired for no reason				
My mind is as clear as it used to be				
I find it easy to do the things I used to				
I am restless and can't keep still				
I feel hopeful about the future				
I am more irritable than usual				
I find it easy to make decisions				
I feel that I am useful and needed				
My life is pretty full				
I feel that others would do better off if I were dead				
I still enjoy the things I used				

FABQ (Waddell, Newton, Henderson, Somerville, Main, 1993)

Here are some of the things other people have told us about their pain. For each statement please circle any number from 0 - 6 to say how much physical activities such as bending, lifting, walking or driving affect or would affect your pain.

	Disagree						Agree	
	0	1	2	3	4	5	6	
My pain was caused by physical activity	0	1	2	3	4	5	6	
Physical activity makes my pain worse	0	1	2	3	4	5	6	
Physical activity might harm my back	0	1	2	3	4	5	6	
I should not do physical activities which might make my pain worse	0	1	2	3	4	5	6	
I cannot do physical activities which might make my pain worse	0	1	2	3	4	5	6	

The following statements are about how you think working (in your normal job, or another job) affects or would affect your pain.

	Disagree						Agree	
	0	1	2	3	4	5	6	
My pain was caused by my work or by an accident at work	0	1	2	3	4	5	6	
Working aggravated my pain	0	1	2	3	4	5	6	
I have a claim for compensation for my pain	0	1	2	3	4	5	6	
Working is too heavy for me	0	1	2	3	4	5	6	
Working makes or would make my pain worse	0	1	2	3	4	5	6	
Working might harm me	0	1	2	3	4	5	6	
I should not work with my present pain	0	1	2	3	4	5	6	
I cannot work with my present pain	0	1	2	3	4	5	6	
I cannot work until my pain is treated	0	1	2	3	4	5	6	
I do not think that I will be back to work within three months	0	1	2	3	4	5	6	
I do not think that I will ever be able to go back to my old job	0	1	2	3	4	5	6	

PSEQ (Nicholas, 1992)

Please rate how *confident* you are that you can do the following things today, *despite the pain*. To indicate your answer, circle one of the numbers on the scale under each item, where 0 = not at all confident, and 6 = completely confident. For example:

0	1	2	3	4	5	6
Not at all confident				Completely confident		

This questionnaire is not asking whether or not you have been doing these things, but rather how *confident* you are that you can do them, despite the pain.

1. I can enjoy things, despite the pain.

0	1	2	3	4	5	6
Not at all confident				Completely confident		

2. I can do most of the household chores (e.g. tidying up, washing dishes, etc) despite the pain.

0	1	2	3	4	5	6
Not at all confident				Completely confident		

3. I can socialise with my friends or family members as often as I used to do, despite the pain.

0	1	2	3	4	5	6
Not at all confident				Completely confident		

4. I can cope with my pain in most situations.

0	1	2	3	4	5	6
Not at all confident				Completely confident		

5. I can do some form of work, despite the pain. (work includes housework, paid and unpaid work).

0	1	2	3	4	5	6
Not at all confident				Completely confident		

6. I can still do many of the things I enjoy doing, such as hobbies or leisure activity, despite the pain.

0	1	2	3	4	5	6
Not at all confident				Completely confident		

7. I can cope with my pain without medication.

0	1	2	3	4	5	6
Not at all confident				Completely confident		

8. I can still accomplish most of my goals in life, despite the pain.

0 1 2 3 4 5 6
Not at all confident Completely confident

9. I can live a normal lifestyle, despite the pain.

0 1 2 3 4 5 6
Not at all confident Completely confident

10. I can gradually become more active, despite the pain.

0 1 2 3 4 5 6
Not at all confident Completely confident

Goal Systems Assessment Battery (1993)

The following sentences describe what people can say about achieving goals. Think about your goal to **return to work** and indicate how well each sentence describes you as you think of this goal. You don't have to think of a specific job, just think of the overall goal you have to start back working.

Under each statement is a scale to mark your answer. Read each sentence carefully and then circle a number on the scale under that sentence to indicate how that specific question applies to you.

Example: I receive a lot of encouragement for working on this goal

0	1	2	3	4
Does not describe me at all				Describes me very well

If you get no encouragement from anyone for working on this goal, you would circle the number 0. If you feel strongly that you do get encouragement for working on this goal, you would circle number 4. Remember, you may use any number along the scale, and not just the extreme ratings. Please complete all the following sentences.

1. I have the necessary skills to reach this goal.

0	1	2	3	4
Does not describe me at all				Describes me very well

2. I'm aware of my day-to-day behaviour as I work towards this goal.

0	1	2	3	4
Does not describe me at all				Describes me very well

3. I try not to let other goals interfere with this goal.

0	1	2	3	4
Does not describe me at all				Describes me very well

4. I reward myself for working hard on this goal.

0	1	2	3	4
Does not describe me at all				Describes me very well

5. Working toward this goal is exciting.

0	1	2	3	4
Does not describe me at all				Describes me very well

6. This goal is valuable to me.

0	1	2	3	4
Does not describe me at all				Describes me very well

7. I try to plan out in advance the steps necessary to reach this goal.

0	1	2	3	4
Does not describe me at all				Describes me very well

I evaluate my progress on this goal by comparing myself to people who are also working it, but are doing **WORSE** than I am.

0	1	2	3	4
Does not describe me at all				Describes me very well

I have the necessary knowledge to reach this goal.

0	1	2	3	4
Does not describe me at all				Describes me very well

Thinking about this goal gives me an uneasy feeling.

0	1	2	3	4
Does not describe me at all				Describes me very well

I try not to let other people interfere with my work on this goal.

0	1	2	3	4
Does not describe me at all				Describes me very well

This goal is worthwhile.

0	1	2	3	4
Does not describe me at all				Describes me very well

I evaluate my progress on this goal by comparing myself to people who are also working it, but are doing **BETTER** than I am.

0	1	2	3	4
Does not describe me at all				Describes me very well

I reward myself when I make progress toward this goal.

0	1	2	3	4
Does not describe me at all				Describes me very well

I keep track of my overall progress toward this goal.

0	1	2	3	4
Does not describe me at all				Describes me very well

This goal is important to me.

0	1	2	3	4
Does not describe me at all				Describes me very well

The thought of not achieving this goal frightens me.

0	1	2	3	4
Does not describe me at all				Describes me very well

I have what it takes to reach this goal.

0	1	2	3	4
Does not describe me at all				Describes me very well

19. Working on this goal makes me feel happy.

0 1 2 3 4
Does not describe me at all Describes me very well

20. I evaluate my progress toward this goal in comparison to how well other people are doing in pursuing it.

0 1 2 3 4
Does not describe me at all Describes me very well

21. I treat myself to something special when I make progress toward this goal.

0 1 2 3 4
Does not describe me at all Describes me very well

22. I routinely criticise myself for unsatisfactory work on this goal.

0 1 2 3 4
Does not describe me at all Describes me very well

23. Working toward this goal brings me joy.

0 1 2 3 4
Does not describe me at all Describes me very well

24. I tend to notice my successes while working toward this goal.

0 1 2 3 4
Does not describe me at all Describes me very well

25. This goal is meaningful to me.

0 1 2 3 4
Does not describe me at all Describes me very well

26. I carefully schedule my activities so I have enough time to pursue this goal.

0 1 2 3 4
Does not describe me at all Describes me very well

27. This goal is a source of pleasure to me.

0 1 2 3 4
Does not describe me at all Describes me very well

28. When working on this goal, I criticise myself for not always having what it takes to succeed.

0 1 2 3 4
Does not describe me at all Describes me very well

29. I am on the lookout for potential obstacles that might interfere with my progress on this goal.

0 1 2 3 4
Does not describe me at all Describes me very well

30. Working on this goal makes me feel somewhat panicky.

0 1 2 3 4
Does not describe me at all Describes me very well

31. I have the ability to reach this goal.

0 1 2 3 4
Does not describe me at all Describes me very well

32. I evaluate my progress on this goal by comparing myself to people who are very much like me in terms of background and ability.

0 1 2 3 4
Does not describe me at all Describes me very well

33. I tend to criticise myself when I'm not making progress toward this goal.

0 1 2 3 4
Does not describe me at all Describes me very well

34. I am tense or jittery when working on this goal.

0 1 2 3 4
Does not describe me at all Describes me very well

35. I congratulate myself when things are going well on this goal.

0 1 2 3 4
Does not describe me at all Describes me very well

36. I routinely criticise myself if I don't work hard enough on this goal.

0 1 2 3 4
Does not describe me at all Describes me very well

WorkAbilities

Pain Management that Works

Information Sheet

We have asked you to complete this questionnaire to find out how you have got on since attending the WorkAbilities Programme at Burwood Hospital.

These questions are designed to help us understand the effect of the programme, and learn how to improve it for other people with problems like yours. Information from this questionnaire may be included in research that we are carrying out on the WorkAbilities Programme but will be grouped together if used in this way so no individuals can be identified.

There are 18 questions specifically to do with this programme, and they should take you about 10 minutes to complete. In addition, we include versions of the questionnaires you have completed before. These give us information about you and your pain as it affects you now, and help us to monitor your progress through the Pain Management Centre.

We value your information and comments.

I have read this information sheet and understand that it is my choice to participate.

Signed.....

Your name..... (Please print)

If you have any questions, please don't hesitate to contact:
Bronwyn Thompson, Coordinator WorkAbilities, Vocational Management
Pain Management Centre, Musculoskeletal Services, Burwood Hospital.
Ph (03) 383 6831

If you have any queries or concerns regarding your rights as a participant in this follow-up you may contact the Patient Advocate Service. Phone (03) 364 0581

WorkAbilities

Pain Management that Works

We are interested in knowing how you have got on since you finished the WorkAbilities Programme at Burwood Hospital. These questions are designed to help us understand the effect of our programmes, and learn how to improve them for other people with problems like yours.

There are 18 questions, and it should take you about 10 minutes to complete. Don't take too long over deciding your answers. Thank you very much for helping us.

1. Since you last attended WorkAbilities, how many visits to health care professionals have you had *for your pain problem?*(apart from visits to your Doctor for medical certificates) Include physiotherapists, occupational therapists, chiropractors, acupuncturists, nurse practitioners, homeopaths, naturopaths etc.

Number of health care professional visits for pain:_____

2. Compared to before you attended WorkAbilities, is the number of visits to other health professionals

- 1 ☐ more
2 ☐ the same
3 ☐ less

3. Have you got a job since the programme?

- 1 ☐ Yes
What?.....
Hours?.....
How long have you been working there?.....
Now go to question 14
2 ☐ No
Go to question 4

4. How confident are you today about getting work?

0	1	2	3	4	5	6
Completely discouraged						Very confident to keep trying

5. Do you have a current CV/Resume?

- 1 ☐ Yes
2 ☐ No

6. Do you have a list of people or organisations that you have contacted, or who you intend to contact about work (not necessarily to get a job, may be to get more information?)

1 ☐ Yes
2 ☐ No

7. Have you registered with a ^{job placement} agency like WorkBridge, Kevin Barrie & Associates or similar?

1 ☐ Yes
2 ☐ No

8. How many days did you actively look for work last week?

.....

9. How many days did you actively look for work over the last month (including last week)?

.....

10. During the last month, how many job interviews have you completed?

.....

11. During the last month, how many visits to workplaces have you completed?

.....

12. During the last month, how many contacts have you had with your case manager?

.....

13. During the last month, have you been on any work trials?

1 ☐ Yes
2 ☐ No

14. List three job titles based on the skills you have identified from the Programme.

1
2
3

15. What are your three favourite or preferred transferable skills?

1

2

3

16. What did you expect to happen by attending WorkAbilities? (tick all that apply to you)

1 Find out my limitations

2 Identify jobs I could do

3 Know what to say in an interview

4 Know how to look for work

5 Get confident about managing a job

6 Learn to communicate with ACC

7 Explain to an employer what I can do, and what I can't

8 Didn't know what to expect

9 Have somebody find me a job

10 Keep ACC happy

11 Have somebody give me a list of jobs I could do

12 Other (please describe)

17. Did you get what you expected?

1 ☐ Yes

2 ☐ No. If not, what would you like to see included? (write notes in the space below)

18. How useful was the course?

0	1	2	3	4	5	6
Not at all						Extremely useful

What was the most important thing you got from the course?

Please write down any other comments you have about the course in the space below.

PAIN MANAGEMENT CENTRE
INFORMATION CONSENT FORM

I have had explained to me fully the reasons for and nature of this Medical/Evaluation appointment. I am agreeable to having information gained held on file for future reference.

I also give permission for this information to be shared amongst team members of the Pain Management Centre, I agree that appropriate information may be reported to the referring agent, my family Doctor and other professionals as may be necessary. It is understood that such information will only be shared for legitimate purposes.

Signed

Date

Individual Return to Work Evaluation

WorkAbilities

Pain Management that Works

Name:.....Date:.....

History

How did it first happen? (onset gradual, sudden, stop/start, specific incident)

What work were you doing at the time?

Who did you see and why did you first go and see a doctor/physio/nurse/other?

☐ wanted a diagnosis

☐ pain was too bad

☐ didn't get better

☐ couldn't cope with work

☐ another person thought I should

☐ other

Pain drawing - where is it troubling you now? (*compare with pain drawing*)

What treatments have you had?

(*note types, providers, change to pain, change function, reinforcement of beliefs*)

What treatments are you still having? Are there any other treatments you think haven't been looked at? Do you think there are any other treatments? What medications are you taking? What are you hoping to get from it/them?

What specific things do you do to cope when the pain is severe? *note use of nonprescribed substances*

What do you believe is the cause of your pain?

Current Activity Level

What are you able to do now that you've had all these treatments

note what person is doing, what they have given up, why they have the difficulties
personal care

domestic activities

social activities/note significant others response, social contact/support

recreation/fitness activities

What is your daily routine?

How do you feel about your future? Do you feel in control of your future?

What plans or goals do you have for the future?

Stopping work

Tell me what happened when you stopped work and came onto ACC...
When did you stop work? Why did you stop work?

Employer attitude

Coworkers attitude

Doctor *also note attitude now...*

Family/spouse *also note attitude now...*

Work

Are you working at all now? ☐ yes ☐ no

Was it paid work? ☐ yes ☐ no

Job title.....

Tell me about this job, what did you do? Tell me about a typical day...

Did you like your job? ☐ yes ☐ no

What did you like or dislike about the job?

What were your relationships like with coworkers? Supervisors? Management?

How did you choose your present job/line of work?

eg family members in same line? influences on job choice eg economic

How did you get your present/most recent job?

Do you think you were good at your job before your problem began?

What exactly do you feel you did especially well?

What are you most proud of in terms of your work?

Did you set goals/standards/promotions/recognition? What were your plans for the future in this job?

Tell me about the way you go about your work, eg methodical, systematic, organised, spontaneous, tidy, punctual, reliable

Have you ever tried to return to your old job? Increase your hours of work?

How did you go about doing this? eg self-directed, Dr directed, ultimatum from work, professional input?

How long did you spend at it?

Why did you stop?

Thinking of your last job, what parts of your job do you feel you are unable to do because of your problem?

What parts of that job do you feel you would still be capable of doing despite your problem?

Beliefs and Expectations about RTW

Do you think you will return to work? What kind of work? *note: not desire to RTW*
expectation/likelihood, kind of work, other jobs, full/parttime

What do you think are the major barriers to your returning to work?

What is stopping you from returning to work?

Note all information about fears, pain coping, finances, unknown functional limitations, Dr's orders, uncertain direction, upskilling, age etc

What is your relationship like with ACC?
relationship with case manager

opinion of case manager

any appeals pending?

Do you have any other income protection/disability insurance payouts due from this pain problem?

Individual Return to Work Plan

WorkAbilities Pain Management that Works

Prepared for:

by:

Date:

Barriers to Return to Work

Functional Limitations (specify)

Reasons to work (value of work)

Activity Routine

Job seeking skills

Job options/transferable skills

Pain management

Other

WorkAbilities Programme yes[] no [](date)

Goals to be achieved before admission to programme:

Further Recommendations:

Client:.....

Evaluation team:.....

Copy to (circle): Notes

GP

Referrer

CM

Confirmed date for WorkAbilities:.....

Summary

Beliefs

- | | |
|---|---|
| <input type="checkbox"/> hurt = harm
<input type="checkbox"/> wait until pain is gone before RTW | <input type="checkbox"/> anticipatory anxiety re increased pain
<input type="checkbox"/> catastrophising
<input type="checkbox"/> lack of control |
|---|---|

Behaviours

- | | |
|---|--|
| <input type="checkbox"/> rest
<input type="checkbox"/> avoidance
<input type="checkbox"/> boom-bust
<input type="checkbox"/> withdrawal from ADL & roles
<input type="checkbox"/> high pain intensity
<input type="checkbox"/> pushing | <input type="checkbox"/> use of aids, appliances
<input type="checkbox"/> poor sleep quality
<input type="checkbox"/> substance use ?self medicating
<input type="checkbox"/> smoking
<input type="checkbox"/> diffuse pain area, broadening
<input type="checkbox"/> deactivated |
|---|--|

Compensation issues

- | | |
|--|--|
| <input type="checkbox"/> income protection/replacement
<input type="checkbox"/> past history of claims
<input type="checkbox"/> compensation disputes, appeals | <input type="checkbox"/> ineffective case management
<input type="checkbox"/> disrupted case management |
|--|--|

Diagnosis and treatment

- | | |
|--|---|
| <input type="checkbox"/> passive health care maintained
<input type="checkbox"/> conflicting diagnoses, no clear dx
<input type="checkbox"/> catastrophising diagnostic language | <input type="checkbox"/> expects biomedical fix
<input type="checkbox"/> unsatisfied with care
<input type="checkbox"/> advice to withdraw/change job |
|--|---|

Emotions - anxiety, mood

- | | |
|---|---|
| <input type="checkbox"/> anticipates increased pain
<input type="checkbox"/> fears of long term pain
<input type="checkbox"/> depression
<input type="checkbox"/> social anxiety, withdrawal | <input type="checkbox"/> sympathetic arousal
<input type="checkbox"/> anxiety, history of anxiety
<input type="checkbox"/> stressed, not in control
<input type="checkbox"/> external locus of control |
|---|---|

Family & environment

- | | |
|---|---|
| <input type="checkbox"/> solicitous partner, spouse, family
<input type="checkbox"/> punitive spouse
<input type="checkbox"/> over-protective | <input type="checkbox"/> don't support RTW
<input type="checkbox"/> lack of support people available |
|---|---|

Work

- | | |
|---|--|
| <input type="checkbox"/> history of poor RTW
<input type="checkbox"/> 5 or more job changes in as many years
<input type="checkbox"/> poor relationships at work
<input type="checkbox"/> dissatisfaction at work
<input type="checkbox"/> low control, high demand | <input type="checkbox"/> minimally supportive, no selected duties
<input type="checkbox"/> biomechanical demands
<input type="checkbox"/> current job stress, organisational changes
<input type="checkbox"/> poor workplace management |
|---|--|

RTW history

- ☐
- negative prior experience
-
- ☐
- has not attempted RTW
-
- ☐
- has no plans to RTW

Barriers to RTW

Sketch interactions overleaf